BRITANNIA FARM MASTER PLAN REFRESH

December 7, 2016

URBAN STRATEGIES INC. THA nblc

peel District School Board

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Table of Contents

1.0 INTRODUCTION **1**

2.0 THE PROCESS **7**

3.0 EXISTING CONDITIONS **13**

3.1 Cultural Heritage 14
3.2 Natural Heritage 22
3.3 Urban Design & Planning Assessment 28

4.0 PROGRAM DEVELOPMENT **47**

4.1 Peel District School Board Program Development 48
4.2 Program Concept 50

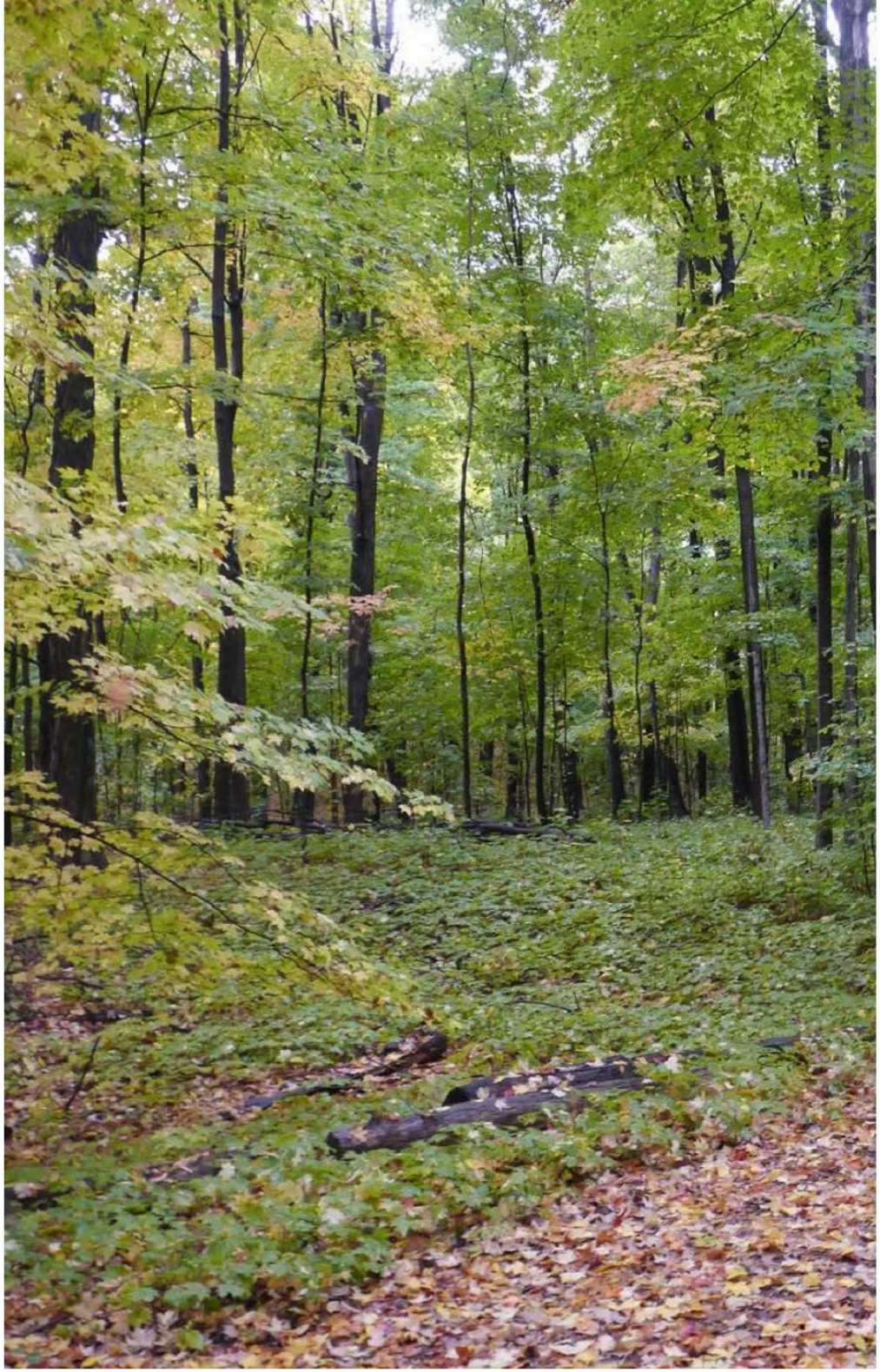
5.0 THE REFRESHED MASTER PLAN **61**

5.1 The Plan 62
5.2 The Framework 64
5.3 Historical Zone 66
5.4 Riparian Zone 72
5.5 Ecological Zone 76
5.6 Agricultural Zone 88
5.7 Development Parcel 92
5.8 Trail Network 98

6.0 PUBLIC ACCESS **101**

7.0 IMPLEMENTATION **105**

APPENDIX **109**



Acknowledgements

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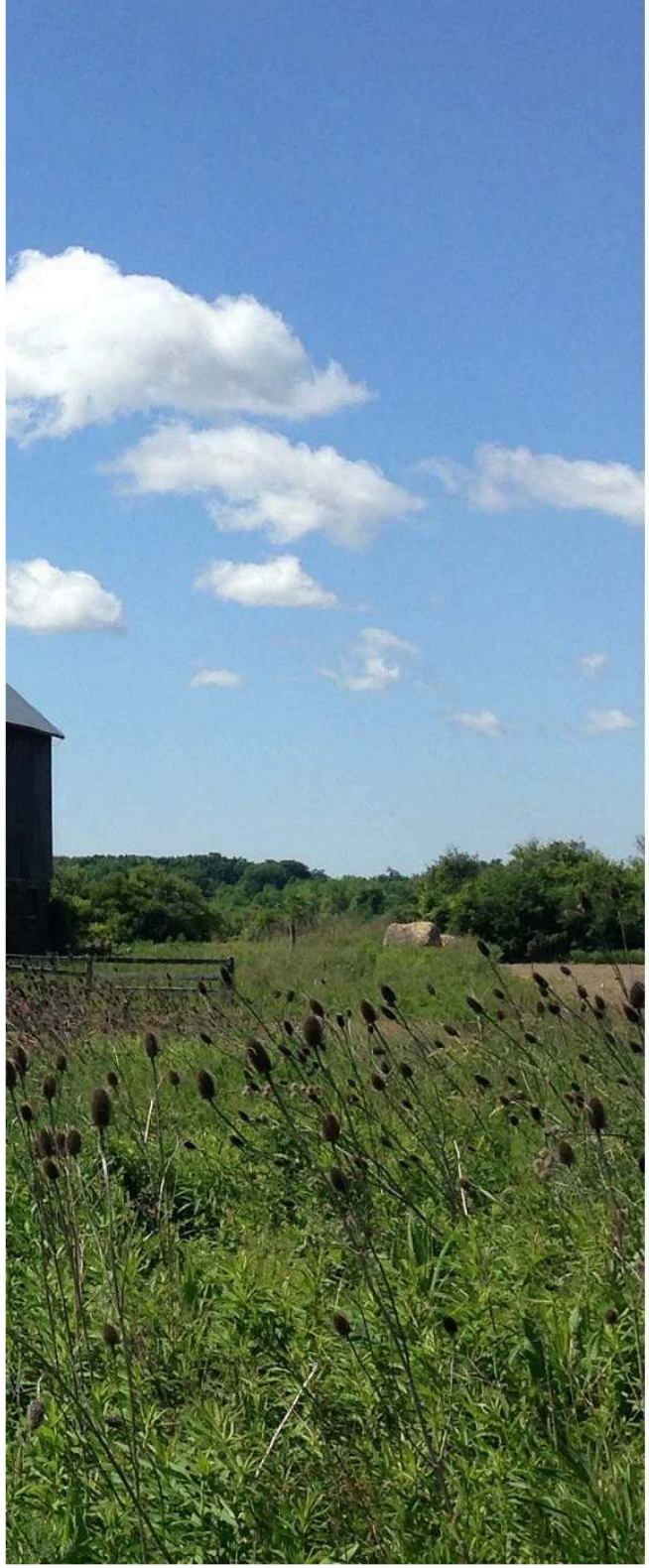
1.0 INTRODUCTION



1.1 Introduction

The 1989 Master Plan by The Landplan Collaborative Ltd. opened with a statement of what a master plan should do. Despite the passage of 27 years much of that document remains incredibly relevant, including the opening passage:

> *A master plan is intended to direct program and physical development over time. It must be flexible enough to allow for technological and social change, yet be firm enough to allow land use commitments to be made and budgets to be allocated.*

The 1989 Plan provided sound guidance that, were it not for factors outside the School Board's control, would likely have resulted in its realization. This refreshed Master Plan builds on the core approaches espoused in 1989, using the flexibility anticipated at the time to update the Plan to reflect contemporary thinking.

The 1989 Plan provided not only a plan for physical interventions on the landscape to make it more conducive to teaching and learning (many of which are maintained here) but perhaps more importantly that document provided a guide for what educational programming should be delivered and how. This was essential as the property had up to that point been in productive agricultural use and had not been thought about as a teaching asset. The necessity for access to natural settings, the value of experiential outdoor learning and the environmental imperative has become even better understood since then. The Board's Alternative Programs staff have also been making use of the property in various ways in the intervening years and know it intimately.

Britannia's Time is Now

This Master Plan Refresh therefore focuses on the physical priorities necessary for unlocking the education potential of the property and unleashing the creativity and passion of the Board's staff and students. It sets out a logical arrangement of these physical elements that is rooted in the rural agricultural setting that has been present on the site since the Trust was established in the 1830s. In doing so it carries forward many of the recommendations from 1989, with some details updated to reflect current approaches.

The Plan also addresses two new considerations: introducing public access to the property in collaboration with the City of Mississauga and development of a portion of the lands as a funding mechanism for the operations of the property.

The Master Plan has been developed to allow the property to be a nurturing place for the natural world and to learn about our place in it. The recommendations address items both big and small, both fixed and moveable, as all play an equally important role in how we learn.

The imperative for understanding and appreciating the natural world, and how we interact and impact it, is heightened even more than when the original plan was prepared. Research on the value of green and natural spaces on mental health is regularly in the media alongside issues of climate change and food security. Britannia Farm's location in the heart of the densest part of Peel Region means that more students will have an opportunity to explore these issues, as well as other issues across the curriculum - or just hop on the LRT to go for a walk in the woods!

Currently the Board's Field Centres (Jack Smythe in Alton, GW Finlayson in Terra Cotta and the Sugar Bush and Schoolhouse programs at Britannia Farm) serve between 25,000 - 30,000 students each year. And yet, in a Board of over 150,000 students there is unmet demand for these important experiences. Wait lists at each site are capped at 50 classes, and many teachers do not elect to be put on the wait lists once they hear the length. Other classes would benefit from a location in the south of the Region in order to provide a more in depth experience - spending more time at the Farm than on a bus. This is especially true for the youngest students who live in the south and for whom the bus ride to the northern centres is not feasible. Finally, access to outdoor and experiential programs at an urban centre may be more affordable for some schools due to reduced transportation costs.

It is important to note that the refreshed Master Plan contains recommendations that can only be realized if funding is secured. However, the refreshed Master Plan is the first step to realizing the full potential of the site as a hub for innovation in environmental education and sustainability. It is a road map to guide the Board and its students on a journey of learning from this remarkable landscape.

R BUSH
MCLAUGHLIN RD
COOKSVILLE CREEK
WOOD LOT

2.0 THE PROCESS

EXIT

2.1 Public & Stakeholder Engagement

A multi-disciplinary team of consultants was commissioned to facilitate the Master Plan Refresh process, including:

- Urban Strategies | Project Lead: Master Planning and Conceptual Development, Consultation
- Evergreen | Programming, Nature Education, Urban Agriculture
- Taylor Hazell Architects Ltd. | Cultural and Built Heritage
- Savanta | Environmental and Natural Heritage
- N. Barry Lyon Consultants Ltd. | Market Advisors

The objective of the overall process was threefold, including to:

- Create a Refreshed Master Plan for the future, sustainable use of the Farm that respects the Farm as an educational resource for the Board;
- Consider the development potential of the 32 acre parcel that was approved for development through a Provincial Order-In-Council in 2009; and
- Determine appropriate public access and ideas for public programming.

The final outcome of this process will be a Refreshed Master Plan, which will be approved by the Board.

The Master Plan Refresh process involved substantial public consultation and stakeholder engagement. The public was actively engaged and invited to three public consultations during the process to ensure that this final Refreshed Master Plan includes the ideas and is shaped by the input of the local community, many of whom care greatly about Britannia Farm. Subject matter experts and key stakeholders were also consulted throughout the process to ensure that the final Refreshed Master Plan is both practical and visionary, as well as reflective of key organizations and individuals who know Britannia Farm well and who have a stake in the future of the property. The following lists all public and stakeholder engagement that occurred throughout the Master Plan Refresh process.

Public Consultation

Public Consultation #1
June 22nd 2016

The first public consultation was well attended by over 150 community members who heard an introductory presentation from the consultant team before breaking out into small groups for discussion, providing their feedback in a workbook. The introductory presentation provided an overview of the Study process, the features of the site, highlights from the 1989 Master Plan, and the evolving local context in which the property now sits. Precedents of other wilderness/outdoor centres were also described to spark discussion. Discussion and feedback focused on how the educational experience at Britannia Farm could be expanded; new activities and programs that might attract the public to the site; the type of revenue generating uses appropriate for the development parcel; and how public access should be managed given the site's primary function as an education resource.

Public Consultation #2
September 21st 2016

The second public consultation was again well attended by community members who heard an introductory presentation from the consultant team that focused on work to-date, including an assessment of natural heritage, built heritage and physical opportunities and constraints of the site, a preliminary assessment of the development parcel, and a summary of 'Big Moves'. Following this, participants broke out into small discussion groups and provided their feedback on a worksheet. Discussion and feedback focused on the kinds of uses that should be included on the development parcel and the types of both free and paid activities/programs the public would like to see on the site.

Public Consultation #3
December 1st 2016

After soliciting feedback from key stakeholders, community members and the public at large over the course of the Master Plan Refresh process, the third public meeting focused on sharing the final refreshed Master Plan with the public during an information-sharing session. Ideas around implementation and next steps were also presented. Display panels were set up and available for the public to read and look at visuals from the refreshed Master Plan document.

Expert & Key Stakeholder Engagement

In addition to public consultation, the project team also carried out a number of interviews with key stakeholders to inform the overall Master Plan Refresh process. The following is a comprehensive list of all the individuals and organizations engaged throughout the process.

- Project Team Tour and Workshop at Evergreen Brick Works - August 24th 2016
- Stakeholder interviews took place throughout the process with the following organizations and individuals:

  Janet McDougald, Peel District School Board Chair

  Carolyn Parrish, Ward 5 Councillor

  Friends of the Britannia School House

  Rob Ridley, Peel District School Board Field Centre Coordinator

  City of Mississauga Planning Staff (Chris Rouse, Manager, Development North; Karen Crouse, Senior Planner, Policy Planning Division; Stephanie Segreti-Gray, Development Planner)

  Credit Valley Conservation (CVC) Staff (Josh Campbell, Manager, Planning and Development Services; Maricris Marinas, Planner)

  Peel Aboriginal Network

  EcoSource

Community members shared their ideas for Britannia Farm on a large aerial image of the site at the first Public Consultation

3.0 EXISTING CONDITIONS

3.1 Cultural Heritage

The Britannia Farm property was included on the City of Mississauga's Inventory of Cultural Landscapes in 2005 as one of the last remaining agricultural landscapes in the city. The 200 acre property contains four historic structures:

1. A red brick schoolhouse (built c1870).
2. A one storey wood frame farm house (built c1860) with a two storey brick addition (built c1870). It is known as the Britannia Farmhouse.
3. A two storey brick residence (built c1830), relocated to its present location in 1989 from the southwest corner of Britannia Road and Hurontario Street. It is known as the Gardner-Dunton House.
4. A wood barn (built c1880), relocated to its present location in c1989 from Sheridan Nurseries in Oakville. It is known as the Conover Barn.

This section presents a history of Britannia Farm from the early 18th century to the mid 19th century before describing the significance of the site today as a designated Cultural Heritage Landscape. This section concludes with a discussion of a number of opportunities and constraints related to the site's heritage value and resources. A detailed description of each of the historic structures that currently exist on the site can be found in the Appendix.

Aerial image of the site today

3.1.1 History of the Site

Aboriginal Presence and Treaty Negotiations

The Mississauga traditionally occupied lands on the north shore of Lake Huron. At the turn-of-the 18th century they were able to penetrate into Iroquois Confederacy territory on the north shore of Lake Ontario, securing control of the area between Lake Huron and Lake Ontario in 1700. The Mississauga continued to occupy these lands until the late-18th and early-19th centuries, when land cessions to imperial countries confined them to a portion of their former territory. The Seven Years' War between rivals Great Britain and France ended in 1763 and with it came the Royal Proclamation issued by King George III to establish the basis of government administration in the territories formally ceded by France to Britain. The Royal Proclamation included provisions for managing lands occupied by Aboriginal groups including the Mississauga. The Proclamation forbade the settlement of those territories by non Aboriginals decreed that Aboriginal land could only be alienated by negotiation and sale to the Crown.

The following years saw numerous land surrenders notably the negotiations which commenced in September 1787 for the lands between Toronto and Lake Huron – this became known as the Toronto Purchase (Treaty 13). The Mississauga developed a partnership with unlicensed French fur traders at the mouth of a waterway known as Rivière du Crédit. The lower Credit River valley remained the domain of the Mississauga until British authorities purchased the surrounding land in 1805. In August 1805, near the mouth of the Credit River, representatives for the British Crown and the Mississauga signed Treaty 13A – which saw the surrender of a vast tract of land to the British Crown. Referred to as the 'Mississauga' or 'First' Purchase, the Crown acquired over 29.946 hectares (74,000 acres). Surveyed in 1806 and named Toronto Township, it was opened for settlement. The survey subsequently became known as the 'Old Survey'.

The steady flow of Loyalist, British and American immigrants settling along Dundas Street and the lakeshore west of the Credit River prompted the colonial administration to purchase the remainder of the Mississauga lands, which included the northern part of Toronto Township. On October 28th, 1818, Treaty 19, which became known as the 'Second Purchase', was signed and with it the surrender of over 242,811 hectares (600,000 acres) of land including most of today's Region of Peel. This vast area was surveyed and opened for settlement in 1819. Known as the 'New Survey', this area was divided into the townships of Toronto, Chinguacousy, Caledon, Albion and Toronto Gore. By 1826 the Mississauga had been resettled on a reserve north of the mouth of the Credit where they remained until 1847 when the provincial government moved them to the Grand River Reserve.

European Settlement

Following negotiation of the Toronto Purchase in 1787, British Parliament created Upper and Lower Canada in 1791 with the passing of the Constitutional Act. John Graves Simcoe was appointed Lieutenant-Governor and set about creating new governmental institutions and preparing the land for settlement. The government of Upper Canada divided the province into a series of counties, creating York County in 1792. Counties provided the base for surveying and creation of townships. York County originally comprised the entirety of what is now the regional municipalities of York, Peel, and Halton, and the City of Toronto, as well as parts of Durham Regional Municipality and the city of Hamilton. York (Toronto) was established as the county seat.

David William Smith, the new acting deputy surveyor general revised the land survey system in 1792. Smith developed a 'chequered plan' in which townships were 14.4 km (9 miles) wide and 19.2 km (12 miles) deep. Each township was further subdivided into 14 concessions containing 24 80-hectare (200 acre) lots. Within each concession, seven lots were reserved for the Crown and an additional seven lots for the clergy, allowing the Crown to sell large parcels to government officials and other important land owners. This survey system was repeated in counties across Upper Canada as treaties were concluded with the Mississaugas.

When incorporated in 1850 Toronto Township had a

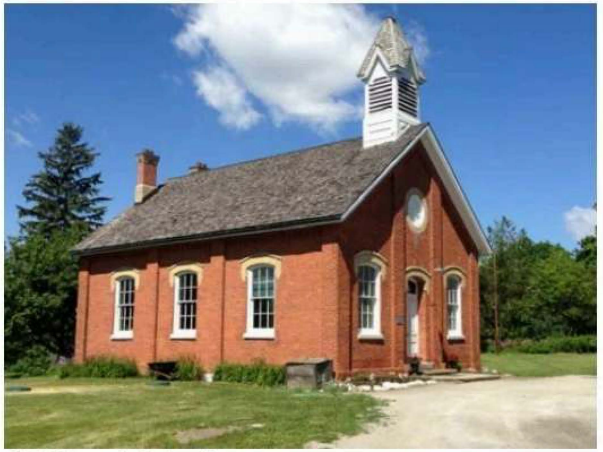
population of about 7,500. In the absence of adequate roads, the inhabitants of the township came to identify more strongly with the local villages and hamlets. For example, Cooksville and Dixie were farm service centres along Dundas Street; Erindale, Streetsville and Meadowvale were millsites on the Credit River; Port Credit, Clarkson and Malton were railway stations on the Credit Valley Railway line. Hurontario Street was one of the exceptions to this trend with substantial farm properties lining the road. Hurontario Street, historically known as Centre Road was surveyed in 1818 with concessions running east and west of it. Subsequently the thoroughfare became known as Hurontario Street denoting its start and end points from Collingwood on Lake Huron to Port Credit on Lake Ontario.

The Britannia Farm property is located on Lot 3, Concession 1 West of Centre Road and is denoted as a School Reserve on the 1877 Peel County Atlas. The 80-hectare (200-acre) parcel was granted to trustees William Thompson, Reverend McGrath and Joseph Gardener by the Crown in 1833. It was to be used specifically for the purposes of education. In order to support the educational component, the land was leased to various farmers, in twenty year periods, beginning in 1833. Thus the site commenced its long-standing dual role as a farm and educational facility.

Britannia Schoolhouse

At the beginning of the 19th century, schooling in Ontario was either privately-funded, taught at home, or not provided at all. Still, many children between the ages of 7 and 12 years attended school at least several months each year. Public schooling in Ontario was established through a series of legislation beginning with the 1807 Act to provide a Grammar (High) School in each of the province's eleven districts. Legislation in 1816 added Common (Elementary) Schools and allowed communities with twenty or more pupils to appoint three trustees. This legislation ushered in the era of the log school which were prevalent during the 1820s. The Act of 1824 further refined Ontario's program, establishing a general Board of Education who was responsible for selecting textbooks, courses of study, and the hiring and qualification of teachers.

It is likely that an original school building on the Britannia Farm property was constructed in the mid-1830s (either log or frame) shortly after the original Crown grant of 1833. In 1843, the province established the role of Chief Superintendent of Education and Methodist Minister Egerton Ryerson was appointed to the job. Influenced by his study of school systems in Europe undertaken between 1844-5, Ryerson published his ideas in Report on a System of Public Elementary Instruction for Upper Canada in 1847. Ryerson believed strongly that education should be universal and compulsory, and even more strongly that it be religious and moral if it was to improve individuals and help society progress. Ryerson's report culminated in the School Act of 1871 and with it, Ontario gained an impressive



Old Britannia Schoolhouse

Britannia Farmhouse

primary and secondary school system based on Ryerson's principles of 'Compulsory Education' and 'Free Schools.' As a result of this legislation, Ontario's public school system developed rapidly during the late 19th century. Moreover, the system was characterized by increasing standardization of textbooks, teacher training, classroom organization and curriculum development.

In 1896, George Ross the Minister of Education published The School System of Ontario: Its History and Distinctive Features. Ross details the 'regulations' for school sections, school sites, and school houses. School sections were about 1,214 to 2,023 hectares (three to five thousand acres) dependent on population density and the site was approved by ratepayers. The school site was required to be on a well-traveled road, the grounds were to be properly leveled and drained, planted with shade trees and enclosed by a substantial fence, every rural school was to have a woodshed, and a means for procuring water, the site was to be not less than half an acre and if the section exceeded seventy-five students then the site should be one acre. The style and material of schoolhouses were the sole responsibility of the trustees of the school under the Public School Act. Log buildings were prevalent and were eventually replaced with frame, brick or stone.

In Britannia, the 1851 school records indicate that a frame school was in poor condition and was renewed or rebuilt 1852-1857 at a cost of $5,000. The existing schoolhouse was constructed c1870, more in conformance with provincial direction. The one-room schoolhouse served rural communities in Ontario until the 1950s when township enlarged central schools and began to bus students from their houses to school. The Britannia schoolhouse was closed in 1959. The Friends of the Old Britannia Schoolhouse was created in 1992 to ensure the continuation of the educational programme for the students of Peel. The group focuses their efforts on working closely with the schoolhouse staff and on supporting the schoolhouse and its programme.

The Friends of the Schoolhouse also support the continuous maintenance and repair of the schoolhouse and the preservation of the historic buildings on the Farm including the Britannia Farmhouse, Gardner-Dunton House and the Conover Barn.

Gardner-Dunton House

Conover Barn

Farmstead

Farming was a typical occupation in the township along with other related industries, such as saw and grist mills. The 80-hectare (200-acre) original surveyed lots were intended to support agricultural practices for early settlers. Agricultural periodicals were common in Canada in the late 19th century and meant to provide practical advice: Rural Canadian & Farm Journal, Canadian Farmer, Farms & Home and Canadian Live Stock and Farm Journal are just a few examples of titles. Advice for raising cattle and horses, selecting breeds, maintaining gardens, pruning orchards, starting bee colonies and household tips proliferated on the pages of these subscription broadsides.

For instance, the Rural Canadian encouraged its readers to create 'attractive farms':

> *Now that our pioneer days are over, it should be the aim and ambition of every farmer to make his farm and his home attractive. What can be more attractive than a well improved farm, well stocked with improved farm machinery and improved stock, broad acres of bountiful grass with a home on the same liberal basis ... a garden and orchard ... a beautiful lawn, handsome shade trees and things generally kept in order.*

As a result, farmstead across Ontario developed in a similar manner – moving from pioneer days in the early 19th-century into a more refined era when economic circumstances permitted. The Peel County Atlas from 1877 illustrates several prominent farmsteads. Although idealized depictions or rural life, the images convey a general sense of the types and configurations of farmsteads.

Both the Britannia farmhouse and Gardner-Dunton House represent a second generation of farmhouses as seen in the use of brick as a building material, veneer and detailing. Aerial images from the 1950s and 1960s show a concentration of outbuilding located to the rear of the farmhouse. These were primarily barns and configured in a U-shape.

Toronto-Guelph Radial Line

The Toronto Suburban Railway operated interurban railway lines between Toronto and Guelph and Toronto and Woodbridge. The route between Toronto and Guelph was known as the Guelph Radial Line and operated as an interurban railway. The line was surveyed in 1911 under Mackenzie and construction began the following year. Tracks were not laid across Britannia Farm until after 1915, however. Following several delays, including issues with the gauge and the onset of World War 1, the line opened on April 14, 1917 operating two round trips daily to Guelph, one to Georgetown and five to Cooksville. There were 100 official stops along the route with small open front shelters and three stations located at Acton, Georgetown, and Guelph. The Canadian Northern Railway (CNoR) took over the TSR in September 1918 which was subsequently taken over by Canadian National Railway (CNR) with a separate operating arm established, the Canadian National Electric Railway (CNER). The Guelph Radial Line operated as the Toronto Suburban District of the CNER. While the frequency of train schedule increased through the 1920s, in 1923 and 1924 TSR lines in Toronto were acquired by the Toronto Transit Commission (TTC). By 1931 low ridership due to automobile and bus use along Highway 7 led the CNR to allow the remaining TSR lines to go into receivership and stop operations. The line was dismantled and equipment disposed by 1935.

While little evidence of the railway line remains throughout the City of Mississauga, the route is clearly legible on satellite imagery of the southwestern corner of the Britannia Farm site. The route is articulated by a stretch of vegetation roughly 25 m wide, and running 360 m in a northwest direction, meeting McLaughlin Road south of the sugar bush. Natural succession of the adjacent forest block has resulted in the railbed becoming obscured.

Late 20th Century Relocations

Gardner-Dunton House and Conover Barn

The Britannia School House and Britannia Farmhouse are original to the property, while Gardner-Dunton House and Conover Barn have been relocated to the property. The buildings were relocated in order to provide facilities to support the functional program of an educational agricultural experience for the Peel District School Board (PDSB). The buildings were relocated as per the 1989 Master Plan.

The Gardner-Dunton House is a two-storey red brick, rectangular structure, with a one-storey brick wing and stone addition at the rear. It has a five-bay front façade with a central door, six panel sidelights and rectangular transom. Dating to c1830, Gardner-Dunton House is an excellent example of Georgian style architecture. It was originally located at the southwest corner of Britannia Road and Hurontario Street and designated by the City of Mississauga in 1987. Gardner-Dunton House was then re-designated after its relocation to the Britannia Farm property in 1989-1990.

The Conover Barn is a large 4 bent, 3 bay structure with a 6 bay stable below. Constructed in the late 1880s it was a Gambrel roofed bank barn with timbers used from an earlier structure. The barn was relocated to its current location from Sheridan Nurseries in Oakville in 1989-90. Several changes were made to the structure including reorienting the banked entry from the west to the face of the building, reversing the orientation of the framing for the upper level and relocating the interior, circular stair to the northeast. The cladding was almost entirely new and the barn set up poured casson post foundations. The stable walls are reinforced grouted concrete block with a stone veneer.

The barn has not been designated by the City of Mississauga, although it is included in the description of the property as a cultural landscape.

1877 - Peel County Atlas

3.1.2 Cultural Heritage Landscape

Cultural heritage landscapes (CHLs) are areas where the relationship between people and place can be understood and described as having a particular sense of identity. While tangible or physical values are usually visual, measurable and fairly easily mapped, identifying CHLs is the process of seeing intangible values expressed as discernible patterns. Another distinction of CHLs is the dynamic quality they possess, as natural components are continuously changing and growing.

Identification of CHLs developed over the last 20 years and was influenced by the United Nations Educational Scientific and Cultural Organization (UNESCO) decision to include 'cultural landscapes' on the World Heritage List and to develop a set definitions. Prior to the idea of CHLs, heritage places were categorized as 'natural' or 'cultural'.

The Britannia Farm property still maintains its historic property boundaries and 200 acre size which reflect the late-18th century land survey system. The property is a major open, agricultural space amidst residential and industrial areas. The location of the Britannia farmstead facing Hurontario Street was typical of the farms that lined the road in the late 19th century. The central farm lane bisecting the property from east to west (and crossing the Cooksville Creek) appears to have been the working backbone of the farm since its establishment as it would have been used to access the sugar bush at the west end of the property from the farmstead and cultivated fields located to the east. The Britannia Farm property was included on the City of Mississauga's Inventory of Cultural Landscapes in 2005 as one of the last the last remaining agricultural landscapes in the city.

Britannia Farm Fields

Meadow and Woodlot in background

3.1.3 Heritage Opportunities & Constraints

General

The current configuration of Britannia Farmhouse, Gardner-Dunton House and Conover Barn is not typical of a 19th century Ontario farmstead. Rather it is the result of a well-intentioned plan to create a demonstration farm on the property. Relocation of these buildings can be considered if there is a specific programme with adequate funding for long-term maintenance.

The Britannia Farmhouse and Gardner-Dunton House are individually designated under the Ontario Heritage Act. In addition the property has been identified by the City of Mississauga as a cultural heritage landscape and its value as an agricultural landscape must be conserved if the buildings are to be relocated.

Britannia Farmhouse

If the Britannia Farmhouse is moved, conservation should be given to the value of masonry removal and reconstruction relative to the extent of damage now apparent. The brick veneer construction of the historic Britannia Farmhouse will require extensive cross bracing, helical tiles, masonry restoration prior to moving and monitoring. This is because of the relatively fragile nature of the building following the 1990 restoration and the absence of maintenance since then.

Gardner-Dunton House

Gardner-Dunton House is a robust structure that was successfully relocated in 1989. Relocation a second time would be successful. It will however require detaching the historic building from the addition as these structures are now integrated. It may be structurally feasible to relocate the addition as well however conservation should be given to the benefit of rebuilding the addition at which time various space planning and barrier-free issues could be addressed.

Careful consideration should be given to the new functional planning and setting for Gardner-Dunton House so as to ensure it has relevance to the buildings adjacent to it and surrounding landscape.

Conover Barn

The Conover Barn was successfully relocated in 1990 and if necessary it can be relocated again in whole or through disassembly and reconstruction. Careful consideration should be given to the siting of the barn with respect to topography and orientation so that its functional value can be fully demonstrated.

Like other barns it will require routine maintenance. If well cared for the Conover Barn will provide good service for many generations to come.

Approval to Relocate Heritage Structures

In 2010, the City of Mississauga Heritage Advisory Committee recommended approval of a request from the Peel District School Board to relocate Britannia Farm House, Gardner-Dunton House and Conover Barn within the Cultural Landscape of Britannia Farm. The approval, forwarded to and accepted by the City of Mississauga General Committee, was subject to a number of conditions including completing the required approvals from the City of Mississauga for any development on the development parcel. The site plan application related to moving the heritage structures remains open.

Conover Barn

3.2 Natural Heritage

The 2012 Britannia Farm Master Plan, municipal and agency planning and ecological databases and policies were reviewed, and ecologists field assessed current conditions. This work has led to an understanding of the natural features and associated functions and how those resources should be considered in terms of current provincial and municipal policy. The Britannia Farm landscape has continued to change over the past few decades as active agriculture patterns and crops have changed. Some formerly cropped fields have begun to transform towards cultural meadow and shrub thickets in the absence of cultivation. In addition to larger wooded areas, the Farm includes pockets of ecological resources, principally associated with Cooksville Creek. These features and functions are discussed in more detail in this section of the report as input to current planning decisions regarding future land uses.

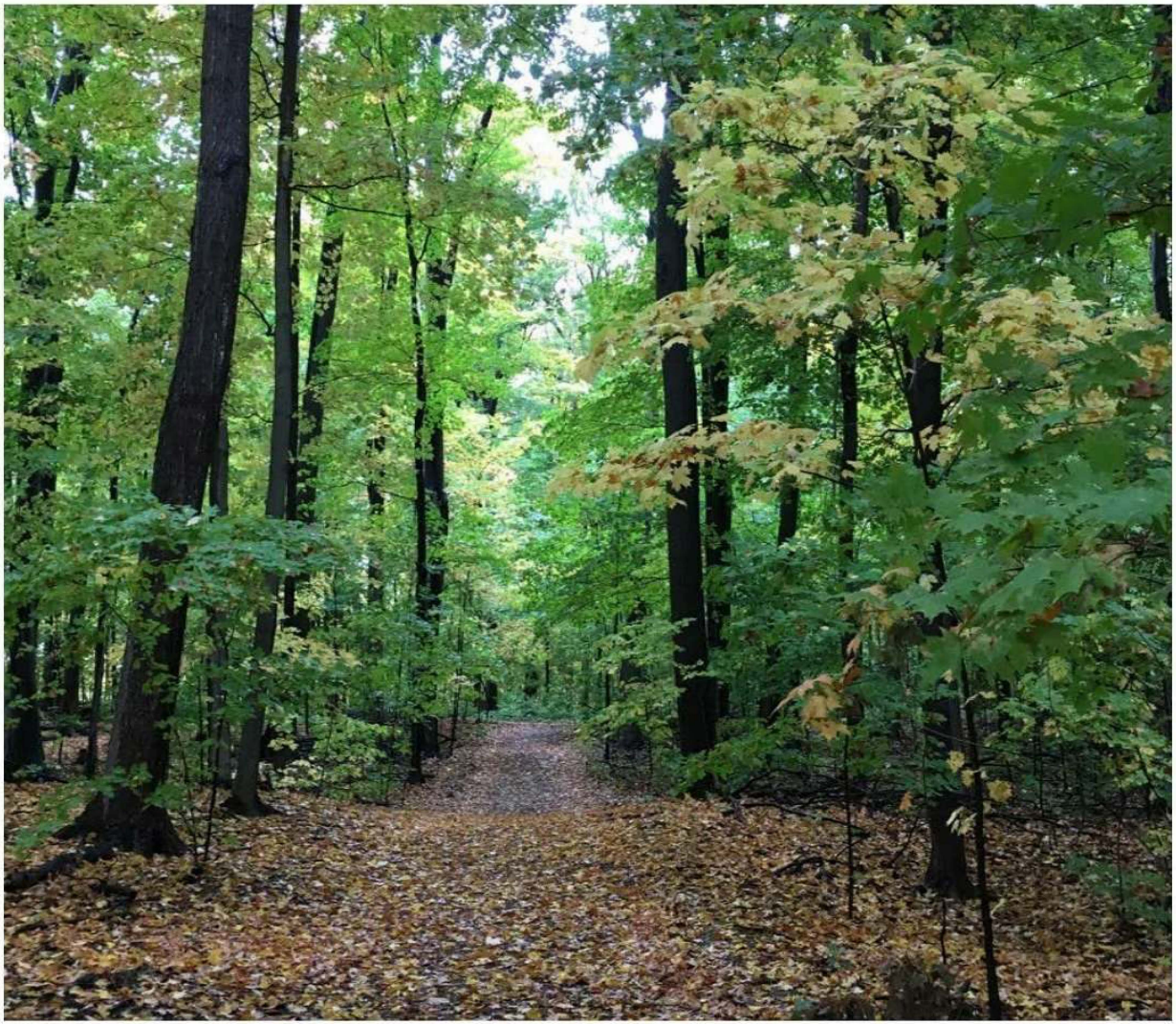
Cooksville Creek

Site Description

According to the Ministry of Natural Resources and Forestry classification, the Britannia Farm lands are located within the Ecoregion 7E-4 which is the Mixedwood Plains Ecozone (Lake Erie-Lake Ontario Ecoregion). This region is characterized as being one of the mildest in Canada, which supports related land-use, flora and fauna. The ecoregion is predominantly cropland and pasture with developed infrastructure and communities. Remnant forests are found throughout the ecoregion. This ecoregion is also known to have the most diverse species of flora and fauna due to the presence of diverse ecological communities (e.g. Carolinian forests, tall grass prairie, deciduous forests, open fens, meadows, cultural thickets, etc.) (MNRF 2009).

The majority of the Subject Lands are under active agricultural management with woodlands present on the western third of the property. Cooksville Creek flows through the centre of these lands and the generally, open landscape is interrupted by scattered small wetlands and hedgerows.

East of McLaughlin Road, there is a 13 ha woodland comprised of upland [Sugar Maple (Acer saccharum) dominant] and lowland [Black Walnut (Juglans nigra)] natural and cultural forest/woodland communities. The Black Walnut lowland deciduous forest, located along a former (historic) railway line, is a rare vegetation community in Ontario. Successional vegetation communities (i.e., meadow, cultural thicket) have expanded over the past few



Sugar Bush

decades, adjacent to some of the woodland communities and where cultivation has been abandoned.

Cooksville Creek, which has been straightened and with some banks reinforced with gabion baskets, flows through the centre of Britannia Farm. Riparian wetlands include cattail marsh along the floodplain and a willow thicket swamp. The creek area and adjacent slopes were planted in 1988 with predominantly native species, including Butternut (Juglans cinerea) and Ash (Fraxinus sp.). Butternut is Endangered in Ontario, and ash is under increasing pressure related to the destructive Emerald Ash Borer. A mixture of successional vegetation communities (meadow, thicket, woodland) surround the watercourse. A narrow lowland forest is present at the northern boundary of the watercourse on the property.

Two isolated wetlands occur within the agricultural fields west of Cooksville Creek. A review of historical air photos suggests that these may have been connected through a local headwater drainage feature. Another small cattail/ meadow marsh occurs at the northern boundary of the Subject Lands, with its catchment historically extending into the developed lands to the north.

The 1989 Britannia Farm Master Plan indicated that a headwater drainage feature began at the north-eastern portion of the sugar maple forest and drained southward into a meadow marsh and silver maple deciduous swamp. The headwater drainage feature and the meadow marsh community are no longer present on the landscape, however wetland soils were observed where the meadow marsh community was historically located. The silver maple swamp remains present on the landscape.

During the 2016 site reconnaissance survey, the silver maple deciduous swamp was not observed to have indications of standing water during the spring (e.g., no staining of tree trunks, no adventitious roots). The aggressive, invasive shrub, Common Buckthorn (Rhamnus cathartica) was present in the understory. The deciduous swamp appears to be undergoing a drying trend, towards lowland cultural woodland dominated by Common Buckthorn. Potential opportunities to restore this headwater drainage feature and meadow marsh should be explored. This would include completing a wetland water balance for the meadow marsh and Silver Maple deciduous swamp. Hydrologic inputs required to restore/maintain these features and to develop enhancement measures to its catchment should be defined (i.e., re-grading, native vegetation) to provide required hydrologic conditions.

In the agricultural fields immediately east of Cooksville Creek are a series of headwater drainage features. The northern headwater drainage feature is mapped as a watercourse on provincial ecological database (Land Information Ontario). Historic aerial photos show wetland soils along portions of these headwater drainage features, and small (<0.1 ha) meadow marsh wetland communities were observed along some lengths of these features during the 2016 site reconnaissance survey.

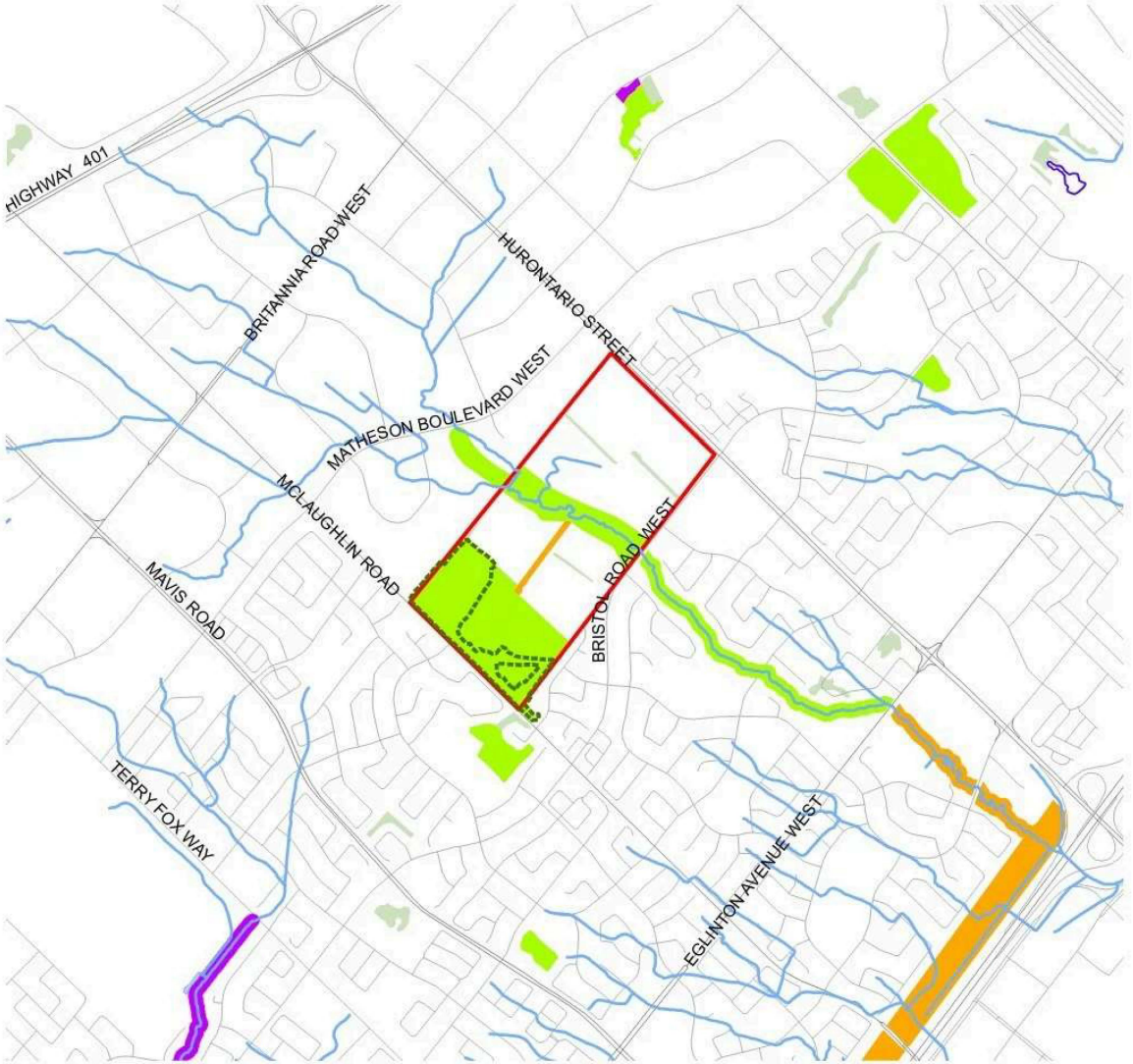
An additional headwater drainage feature is present just south of the H.J.A Brown Education parking lot and continues southeast through agricultural fields, east of the barn and terminates in a cattail marsh and upland meadow just south of the barn. This headwater drainage feature is within the future development parcel and a headwater drainage feature assessment will be needed to categorize this feature and determine whether this feature can be removed, realigned or must remain in place.

The remainder of the Subject Lands are agricultural fields, delineated by shrub dominated hedgerows (i.e., Hawthorn (Crataegus sp.) and Common Buckthorn) on the eastern portion of the property and deciduous native tree (i.e. Maple (Acer sp.), Oak (Quercus sp.), Cherry (Prunus sp.) dominated hedgerows on the western portion.

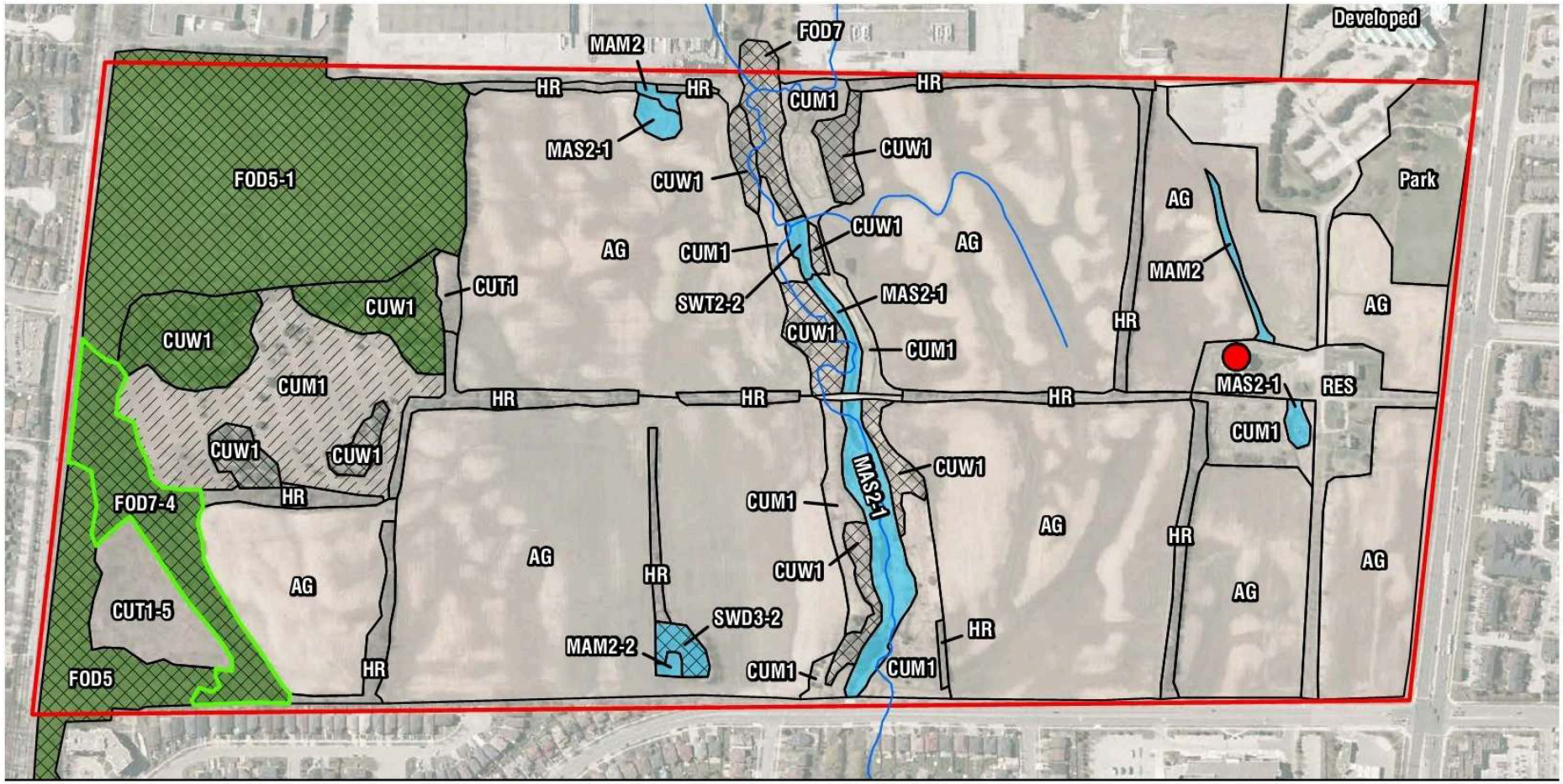
3.2.1 Natural Heritage Opportunities and Constraints

The extent or presence of significant habitat or species at risk will need to be determined in specific field surveys at specified times of the year where any landscape is proposed to be disturbed.

There is significant potential to increase the extent of natural area and linkages on the property by restoring existing features (such as wetlands and the creek) and expanding others through natural and managed succession.



Natural Features Desktop Analysis



Significant Natural Heritage Features

Subject Lands
Ecological Land Classification
Local Wetlands
Significant Woodland
Watercourse (MNRF LIO)

Potential Habitat of Endangered and Threatened Species

Potential Eastern Meadowlark breeding habitat (Threatened)
Potential maternal roosting habitat for four endangered bat species
Potential Significant Wildlife Habitat
Potential Breeding Barn Swallow (Threatened) habitat

0 100 Meters

SAVANTA

ELC LEGEND

CUM1	Mineral Cultural Meadow
CUT1	Mineral Cultural Thicket
CUT1-5	Raspberry Cultural Thicket
CUW1	Mineral Cultural Woodland
FOD5	Dry-Fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-Fresh Sugar Maple Deciduous Forest Type
FOD7	Fresh-Moist Lowland Deciduous Forest
FOD7-4	Fresh- Moist Black Walnut Lowland Deciduous
MAM2	Mineral Meadow Marsh
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWT2-2	Willow Mineral Thicket Swamp
AG	Agricultural
Developed	Developed
HR	Hedgerow
Park	Park
RES	Residential

Woodlot

3.3 Urban Design and Planning Assessment

3.3.1 Urban Design Opportunities and Constraints

An urban design Opportunity & Constraints analysis examines Britannia Farm and its surrounding context relative to potential future access and gateways, organization of the site and programmatic elements, ecological resources and potential future development opportunities.

LEGEND

Site Boundary

Farmstead Node and Relocation Site

Currently the Farmstead lies within the designated development parcel. The master plan should consider the relocation of the Farmstead to a more appropriate site.

Farm Lane Axis

The existing farm lane provides central east-west spine and organizing feature. The master plan should explore how the lane interacts with the development site and what character it should possess.

Potential Access Points and Gateways

Future points of access from the busy arterials of Hurontario St. and McLaughlin Rd. are restricted. Consideration may need to be given to new points of access along Bristol Rd. and Matheson Blvd, or for the establishment of a local street network on the lands to support the Farm and the development parcel. The lack of an existing point of arrival or 'front door' to the Farm is an issue to be addressed.

Proposed Hurontario LRT & Stops

While Britannia Farm has maintained a rural character over time, adjacent Hurontario Street has evolved significantly. The planned Hurontario LRT corridor with stops at Bristol Road and Matheson Blvd brings significant opportunity for the development parcel and the farm.

Development Parcel & Frontage

The prospect of developing a portion of the site provides financial opportunity for the future Britannia Farm. The development parcel's location has good visibility and access along Hurontario Street and the future Bristol HLRT stop.

Buffers

While a limited portion of the site is open for development the vast majority of Britannia Farm will maintain its rural setting. One of the key issues to be addressed on the site is the integration or buffering of the development parcel.

Urban Frontage & Transition

Britannia Farm is a managed landscape constrained by its urban context. Hurontario Street, McLaughlin Road and portions of Bristol Road provide frontage while remaining edges are reverse-lotted from by neighbouring uses such as residential backyards.

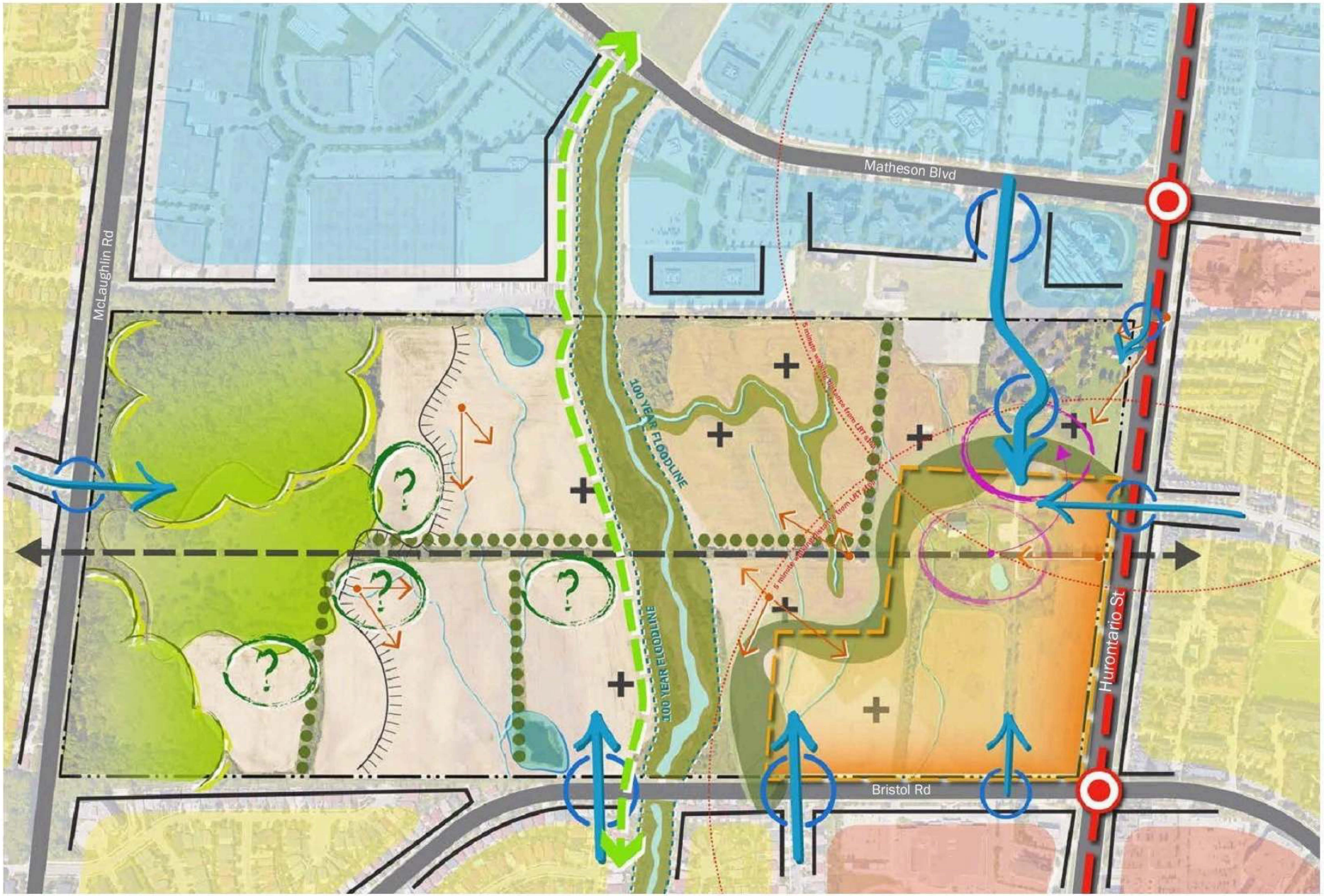
Cooksville Creek Floodline

Development is restricted within the Cooksville Creek floodplain. It forms a natural separation between lands and activities to the east and west of the property

Keys Views

The rolling topography of the site affords views of the Farm's rural character in the heart of Mississauga. Views from key locations should selectively screen the urban background and reinforce the Farm's rural setting.

Legend continues on page 30


Matheson Blvd
McLaughlin Rd
100 YEAR FLOODLINE
100 YEAR FLOODLINE
Hurontario St
Bristol Rd

Potential Field Centre Locations

The farm lacks a central hub for its identity and basic indoor infrastructure to support programming. A field centre should be located on the site.

Potential Trail Connections

Cooksville Creek is a natural feature with the potential to connect the public with the Farm's ecological, historical, and recreational qualities. Opportunity exists to allow controlled pedestrian/bicycle circulation along the west side of Cooksville Creek outside of the flood plain to connect residential areas with recreational areas to the north and south of Britannia Farm.

Wooded Areas

Apart from educational experiences, the wooded areas also screen the noise and visual aspects of the Farm's urban context. These areas and trails also provide a gateway experience for public access off McLaughlin Rd.

Hedgerows

Existing hedgerows are remnants of the Farm's agricultural heritage. They offer a natural organizational structure and support wildlife movement and shelter. Expansion and improvement of these natural assets also allow for educational opportunities.

Ridge

The topography of the lands includes a rise in the west end, seemingly elevating the wooded areas and affording impressive views both to and from the sugar bush.

Localized High Points

High points in the unaltered topography of the site are opportunities for views but may also be constraints for locating specific program features due to additional exposure.

Local Headwater Drainage Feature

A local headwater drainage feature, is present in the eastern fields and should be maintained and enhanced. Structures and intense agriculture may be constrained as a result.

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Britannia Farm natural and cultural features

3.3.2 Planning Assessment

The following section provides an overview of the policy framework applicable to Britannia Farm.

Provincial & Regional Policy Direction

Provincial Policy Statement (2014)

The Provincial Policy Statement includes policies on managing and directing land use to build strong, healthy communities. Efficient land uses that capitalize on existing infrastructure, promote sustainability, protect the environment, ensure public safety, and facilitate economic growth are mandated by the Provincial Policy Statement. The Provincial Policy Statement is supportive of the intensification and redevelopment of existing built-up areas, as well as the provision of a range and mix of housing options. Since the Provincial Policy Statement is a high-level policy document intended to guide land use province-wide, it does not contain specific policies addressing Britannia Farm, however the use of the bulk of the lands for education, natural heritage conservation and enhancement, and the development and intensification of the development parcel is generally consistent with the goals of the Provincial Policy Statement.

Transportation and Infrastructure Corridors

The Provincial Policy Statement mandates that new development proposed on adjacent lands to existing or planned corridors, such as the Hurontario-Main LRT corridor, and transportation facilities be compatible with, and supportive of, the long-term purposes of the corridor.

Cultural Heritage

The Provincial Policy Statement provides specific direction for the protection of Cultural Heritage Landscapes (CHLs), both on a development site and where development is proposed on an adjacent property. The changes in the 2014 Provincial Policy Statement strengthen the definition of a CHL:

> *A defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association.*

The Provincial Policy Statement mandates that "significant built heritage resources and significant cultural heritage landscapes shall be conserved." The Britannia Farm property was included on the City of Mississauga's Inventory of Cultural Landscapes in 2005. It is important that all cultural heritage resources be conserved.

Natural Heritage

Eight types of significant natural heritage features are defined in the Provincial Policy Statement, as follows:

- Significant wetlands
- Significant coastal wetlands;
- Significant woodlands;

- Significant valleylands;
- Significant wildlife habitat;
- Fish habitat;
- Habitat of endangered and threatened species; and,
- Significant areas of natural and scientific interest (ANSIs).

Development and site alteration shall not be permitted in significant wetlands, or in significant coastal wetlands. Development and site alteration shall not be permitted in: significant woodlands, significant valleylands, significant wildlife habitat or significant ANSIs, unless it is demonstrated that there will be no negative impacts on the natural features or their ecological functions.

Development and site alteration shall not be permitted in the habitat of endangered and threatened species or in fish habitat, except in accordance with provincial and federal requirements. Development and site alteration may be permitted on lands adjacent to fish habitat provided it has been demonstrated that there will be no negative impacts on the natural feature or their ecological functions.

A site reconnaissance survey of Britannia Farm, and a review of relevant policies, determined that there are three potential significant natural heritage features on the site, including significant woodlands, potential significant wildlife habitat, and potential habitat for endangered or threatened species around Cooksville Creek and in the Woodlands and adjacent areas.

Growth Plan for the Greater Golden Horseshoe

The Growth Plan for the Greater Golden Horseshoe (GGH) is a regional plan for growth and development with the objectives of mitigating sprawl, conserving agricultural and natural heritage areas, revitalizing downtowns, and protecting employment areas. The Growth Plan provides residential and employment growth targets to 2041 for municipalities within the Greater Golden Horseshoe, and mandates that the Official Plans of all included municipalities conform to the Growth Plan's targets and policies.

Intensification Areas

In order to achieve a more compact urban form and constrain sprawl, the Growth Plan requires that a minimum of 40% of all residential development be contained within existing built-up areas through intensification and redevelopment in existing built-up areas. The subject property is located within the existing built-up area of Mississauga. The Growth Plan also identifies twenty-five Urban Growth Centres throughout the GGH as focus areas for intensification intended to be developed into mixed-use, transit-oriented, and pedestrian-friendly environments. One of these Urban Growth Centres is Mississauga's City Centre, generally located along Hurontario Street between Highway 403 and the QEW.

Although Britannia Farm is not directly located within an Urban Growth Centre, the Growth Plan supports varying scales of intensification and mixed-use development in appropriate locations across all communities throughout the GGH. Since the Farm is located within an already built-up area, development of the development parcel will be considered intensification and is generally supported by the Growth Plan.

Intensification Corridors

The Growth Plan states that intensification corridors will be designated in official plans and planned to achieve:

a) increased residential and employment densities that support and ensure the viability of existing and planned transit service levels

b) a mix of residential, office, institutional, and commercial development wherever appropriate.

Intensification corridors will generally be planned to accommodate local services, including recreational, cultural and entertainment uses. Hurontario Street is designated as an intensification corridor.

Natural and Cultural Heritage Conservation

The Growth Plan mandates natural and cultural heritage conservation, including conservation of cultural heritage and archaeological resources where feasible, as built-up areas are intensified. Further, municipalities, conservation authorities, non-governmental organizations, and other interested parties are encouraged to develop a system of publicly accessible parkland within the GGH that:

a) clearly demarcates where public access is and is not permitted;

b) is based on a co-ordinated approach to trail planning and development; and

c) is based on good land stewardship practices for public and private lands.

The Britannia Farm Master Plan, including the development parcel, must conserve natural and cultural heritage

Ontario Endangered Species Act, 2007

The provincial Endangered Species Act (ESA), 2007 was developed to:

- Identify species at risk, based upon best available science;
- Protect species at risk and their habitats and to promote the recovery of species at risk; and
- Promote stewardship activities that would support those protection and recovery efforts.

The ESA protects all threatened, endangered and extirpated species listed on the Species at Risk in Ontario list. These species are legally protected from harm or harassment and their associated habitats are legally protected from damage or destruction, as defined under the ESA (MNR, 2007).

The site reconnaissance survey identified the following vegetation communities with potential to provide habitat for endangered and threatened species:

- Dry-fresh Sugar Maple deciduous forest (northwest corner and southwest corner of the Subject Lands), fresh-moist Black Walnut lowland deciduous forest, Silver Maple deciduous swamp, and all cultural woodlands provide potential suitable nesting and roosting habitat for three endangered bat species [Eastern Small-footed Myotis (Myotis leibii), Little Brown Myotis (Myotis lucifugus) and, Northern Long-eared Myotis (Myotis septentrionalis)];
- Cultural meadow south of the sugar bush provides potential habitat for Eastern Meadowlark (Sturnella magna) which is a threatened species in Ontario; and
- Barn provides potential habitat for Barn Swallow (Hirundo rustica), which is a threatened species in Ontario.

Region of Peel Official Plan

The Region of Peel Official Plan provides a holistic approach to planning through an overarching sustainable development framework that integrates environmental, social, economic and cultural imperatives.

Britannia Farm is not referenced directly in the Region's Official Plan, however, Schedule D: Regional Structure locates the farm within the Urban System on a Regional Intensification Corridor. Regional Intensification Corridors should be planned to provide:

a) prime opportunities for intensification;

b) opportunities for residents to live and work within the Regional Intensification Corridor;

c) a high intensity, compact urban form with an appropriate mix of uses including commercial, office, residential, recreational and major institutional – as designated and/or defined in area municipal official plans;

d) transit-supportive and pedestrian-oriented urban forms;

e) opportunities for higher order transit; and

f) viable opportunities of financing necessary infrastructure and services.

The Region of Peel Official Plan Consolidation October 2014 also contains updated natural heritage policies including criteria for determining Core Areas (Table 1) and policies regarding their protection. As identified in Schedules A, B and C of the Region of Peel Official Plan, the dry-fresh Sugar Maple deciduous forests and the fresh-moist Black Walnut lowland deciduous forest are designated as Core Areas of the Greenland System (Schedule A).

The Region of Peel Official Plan provides criteria for defining significant features including important woodlands. The dry-fresh sugar maple deciduous forest (sugar bush), two cultural woodlands south of the sugar bush, fresh-moist black walnut lowland forest and the dry-fresh sugar maple forest at the southwest corner of the Subject Lands meet the criteria for designation as part of the Greenland System. (i.e. meets the Region's criteria specified in Table 1 of the OP). No development (i.e. roads, buildings) is permitted within Core Areas of the Greenlands System.

Overall, the directions contained in this refreshed Master Plan are consistent with the Region of Peel Official Plan.

Credit Valley Conservation

Credit Valley Conservation (CVC) reviews planning application submissions associated with future development of properties within its jurisdictional boundaries. In addition, CVC provides planning and technical advice to planning authorities to assist them in fulfilling their responsibilities regarding natural hazards, natural heritage and other relevant policy areas pursuant to the Planning Act, as both a watershed-based resource management agency and through planning advisory services, in addition to their regulatory responsibilities.

CVC administers the Development, Interference with Wetlands, Alterations to Shorelines and Watercourses Permit process, under Ontario Regulation 162/06. CVC also administers the Generic Regulation (Ontario Regulation 97/04), adopted in May 2004 and amended March 2011, which defines the areas of interest that allow conservation authorities to:

Prohibit, regulate, or provide permission for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or changing or interfering with a wetland; and

Prohibit, regulate, or provide permission for development if the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected by the development.

CVC acts as a commenting and permitting agency for any works completed within their regulation area, which includes Cooksville Creek and local wetlands.

Municipal Policy Direction

City of Mississauga Strategic Plan & Action Plan

The City of Mississauga's 2009 Strategic Plan was created to guide decision-making, set priorities and focus the City's efforts on five major pillars of strategic change until 2050. The Strategic Plan is Mississauga's highest level strategic document and is complemented by the City of Mississauga Action Plan created to help implement the Strategic Plan.

The five major pillars of the Strategic Plan are as follows:

- Developing a Transit-Oriented City
- Ensuring Youth, Older Adults and New Immigrants Thrive
- Completing our Neighbourhoods
- Cultivating Creative and Innovative Businesses
- Living Green

Overall, the Strategic Plan is supportive of transit-oriented development and a more compact urban form to facilitate active transportation, sustainability, and complete neighbourhoods where people can live, work and play.

City of Mississauga Official Plan

The Mississauga Official Plan, adopted by City Council in 2010, recognizes that most of Mississauga's greenfield lands have been developed and much of its infrastructure is in place. As a result, the Official Plan directs new growth mostly through infill development and redevelopment in certain areas that will be improved by intensification, such as the Hurontario Street Corridor. Existing stable residential Neighbourhoods will not experience this kind of intensification moving forward. The Mississauga Official Plan provides a policy framework to protect, enhance, restore and expand the Natural Heritage System, to direct growth to where it will benefit the urban form, support a strong public transportation system, and address the long term sustainability of the city.

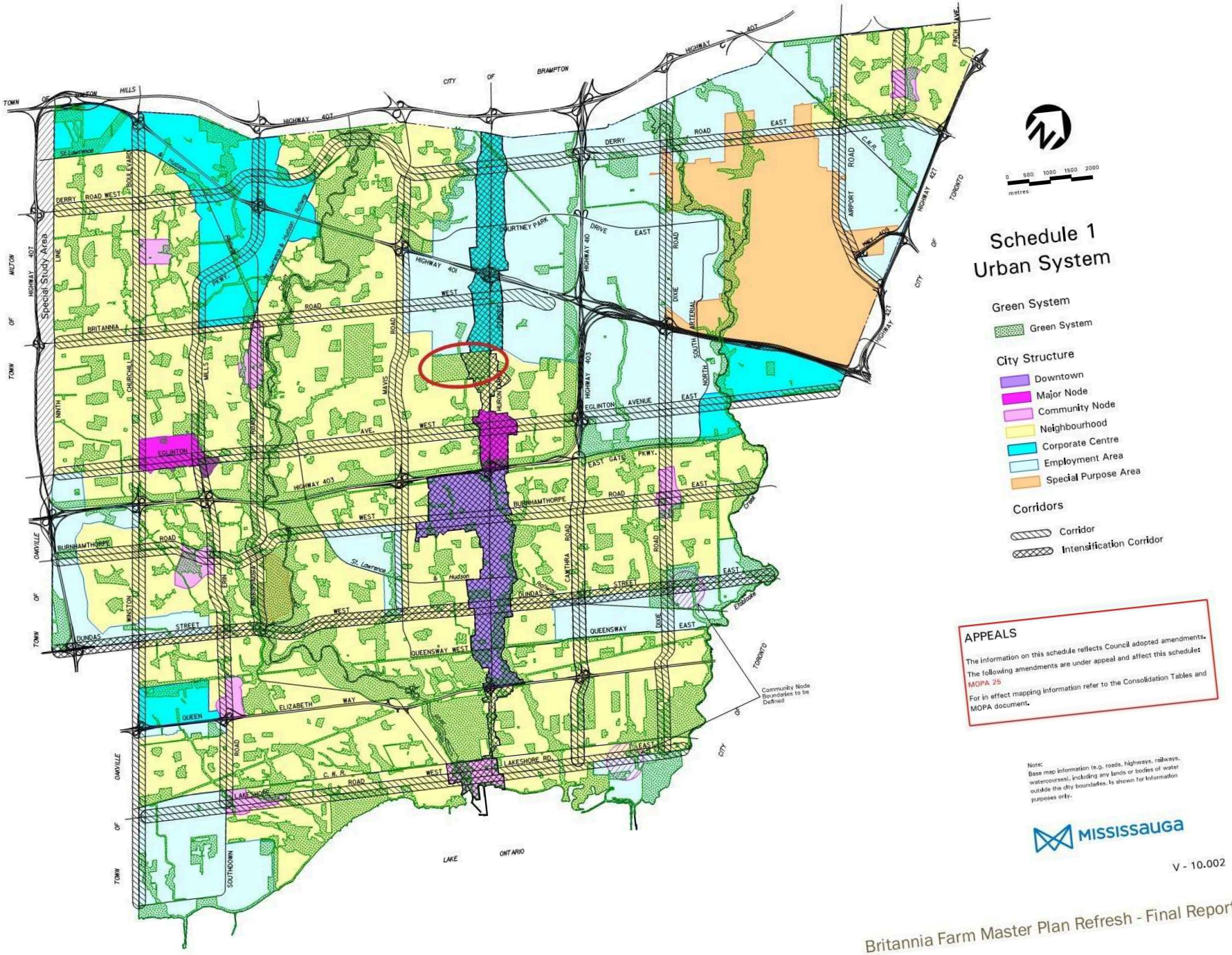
Schedule 1: Urban System (see map on the following page) identifies Britannia Farm as part of the Green System, Hurontario Street and the Britannia Farm lands east of Cooksville Creek as located within an Intensification Corridor. The lands to the west, south, and east are located within a Neighbourhood; while lands to the north are located within an Employment Area and Corporate Centre. A Major Node is located to the south of the site.

Multiple Official Plan schedules identify Hurontario Street as an Intensification Corridor. Schedule 2: Intensification Areas and Schedule 6: Long Term Transit Network show Hurontario Street as an Intensification Corridor and a Higher Order Transit Corridor with Light Rail Transit.

Schedule 8: Designated Right-of-Way Widths, Schedule 5: Long Term Road Network, and Schedule 7: Long Term Cycling Routes offer the following classifications for the roads bounding the site:

- Hurontario Street: 45m ROW, Arterial, Primary On-Road / Boulevard Route for cyclists
- Matheson Blvd: 30m ROW, Major Collector
- Bristol Road: 30m ROW, Major Collector, Primary On-Road / Boulevard Route for cyclists
- McLaughlin Road: 26m ROW, Major Collector (Scenic Route), Primary On-Road / Boulevard Route for cyclists

The Cooksville Creek Trail is identified as a Primary Off-Road Route for cyclists that connects to a Primary On-Road / Boulevard Route (Regional) along Britannia Road West and a Primary On-Road / Boulevard Route along Eglinton Avenue West.



Mississauga Official Plan Schedule 1: Urban System

The entire Britannia Farm is designated Institutional on Schedule 10: Land Use Designations, except for Cooksville Creek and its riparian area, which is designated Greenlands and Natural Hazards. The institutional designation recognizes Britannia Farm as a unique feature in the City that is owned and operated by the Peel District School Board. Britannia Farm is to be developed in accordance with the Britannia Farm Master Plan. In addition to the uses permitted in all designations, lands designated Institutional also permit the following uses:

a. hospital;

b. post-secondary educational facility;

c. residential dwellings associated with an institutional use; and

d. accessory uses.

The Uses Permitted in all Designations policies of the Official Plan do not apply on the portion of Britannia Farm that is designated Greenlands (11.2.1.1). The Greenlands designation restricts development to protect people and property from damage, and provide for the protection, enhancement, and restoration of the Natural Heritage System (11.2.3). Permitted uses include conservation, passive recreational activity, and parkland (11.2.3.2). Permitted uses are subject to the approval of conservation authorities, the City and other appropriate approval agencies (11.2.3.4).

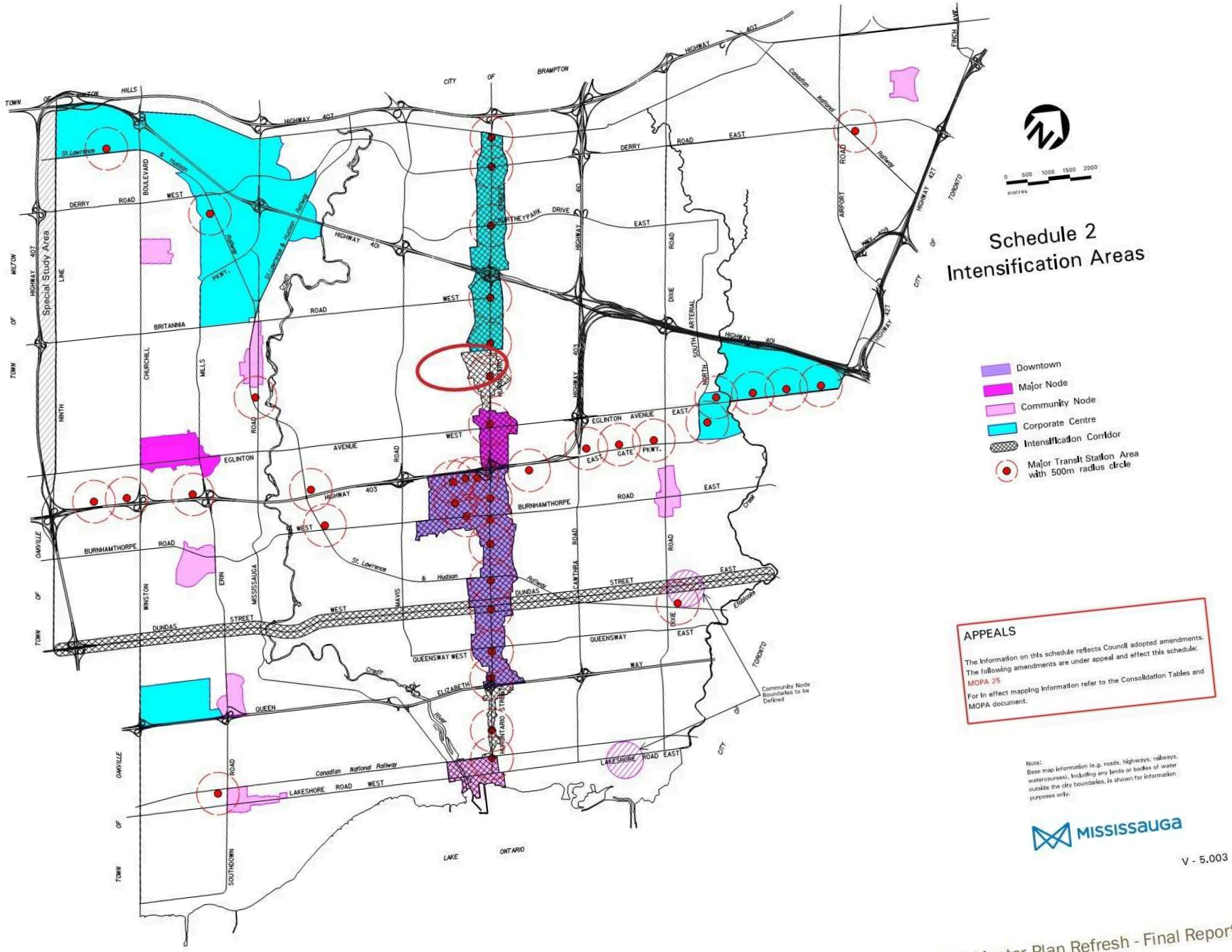
To the north of the site are Business Employment and Office designations within Employment Area and Corporate Centre Character Areas. Lands to the east are designated Residential Medium Density. Lands to the south are predominantly Residential Low Density II, with Motor Vehicle Commercial and Residential High Density designations; while lands to the west are predominantly Residential Low Density II, with Residential Medium Density and Convenience Commercial designations. The vicinity has pockets of Mixed Use and Residential Medium Density designations, and the site is close to a large Mixed Use area known as the Heartland Town Centre to the north-west and a major node consisting of Residential Medium and High Density, Mixed Use, and Office to the south-east.

Britannia Farm appears on the Official Plan's Schedule 1a: Urban System – Green System map. Schedule 3: Natural System identifies the western portion of the property and the Cooksville Creek as Significant Natural Areas and Natural Green Spaces, connected by a Linkage. The Creek is also identified as a Natural Hazard. Schedule 4: Parks and Open Spaces does not identify the entire Britannia Farm, but it does identify the riparian environment of Cooksville Creek as Public and Private Open Space linking to other Open Space and Educational facilities to the north and south.

Chapter 6: Value the Environment outlines the City's approach to its Natural Heritage Systems. Among its environmental policies is a requirement that buffers of vegetated protection areas separate development from Natural Heritage Features and Natural Hazard Lands (6.3.7). Policies for protecting, enhancing, and restoring the Natural Heritage System (6.3.24) include ensuring development protects and maintains the features and their ecological functions (a) and promoting stewardship (e).

Development and site alternation on lands adjacent to a Significant Natural Area require an Environmental Impact Study (6.3.29), and development within or adjacent to Natural Green Space and Linkages is not allowed unless it has been demonstrated there will be no negative impact to the natural heritage features and ecological function of the areas (6.3.32).

The Official Plan also provides specific direction for the protection of cultural heritage resources, stating that these resources must be maintained in situ and in a manner that prevents deterioration and protects the heritage qualities of the resource (7.4.1.13); cultural heritage resources will be integrated with development proposals (7.4.1.14); Mississauga will regulate use and other matters, as appropriate, for heritage preservation through zoning bylaws (7.4.1.15); and Mississauga will acquire heritage easements, apply restrictive covenants, and enter into development agreements, as appropriate, for the preservation of cultural heritage resources (7.4.1.16).


Schedule 2
Intensification Areas
Downtown
Major Node
Community Node
Corporate Centre
Intensification Corridor
Major Transit Station Area with 500m radius circle
APPEALS
The information on this schedule reflects Council adopted amendments. The following amendments are under appeal and effect this schedule:
MOPA 25
For In effect mapping information refer to the Consolidation Tables and MOPA document.
Note:
Base map information (e.g. roads, highways, railways, watercourses), including any lands or bodies of water outside the city boundaries, is shown for information purposes only.
MISSISSAUGA
V - 5.003
Special Study Area
Community Node Boundaries to be Defined
LAKE ONTARIO

Mississauga Official Plan Schedule 2: Intensification Areas

The City of Mississauga Official Plan also identifies both institutional and natural heritage system features for Britannia Farms. The dry-fresh Sugar Maple deciduous forests, fresh-moist Black Walnut deciduous forest, cultural meadow between these forests, cultural woodlands between these forests and the agricultural field at the southeast corner of these communities are designated as "significant natural areas and natural green spaces" under the City of Mississauga Official Plan. The central hedgerow that connects the woodlands to Cooksville Creek is designated as "linkage" under the City of Mississauga Official Plan.

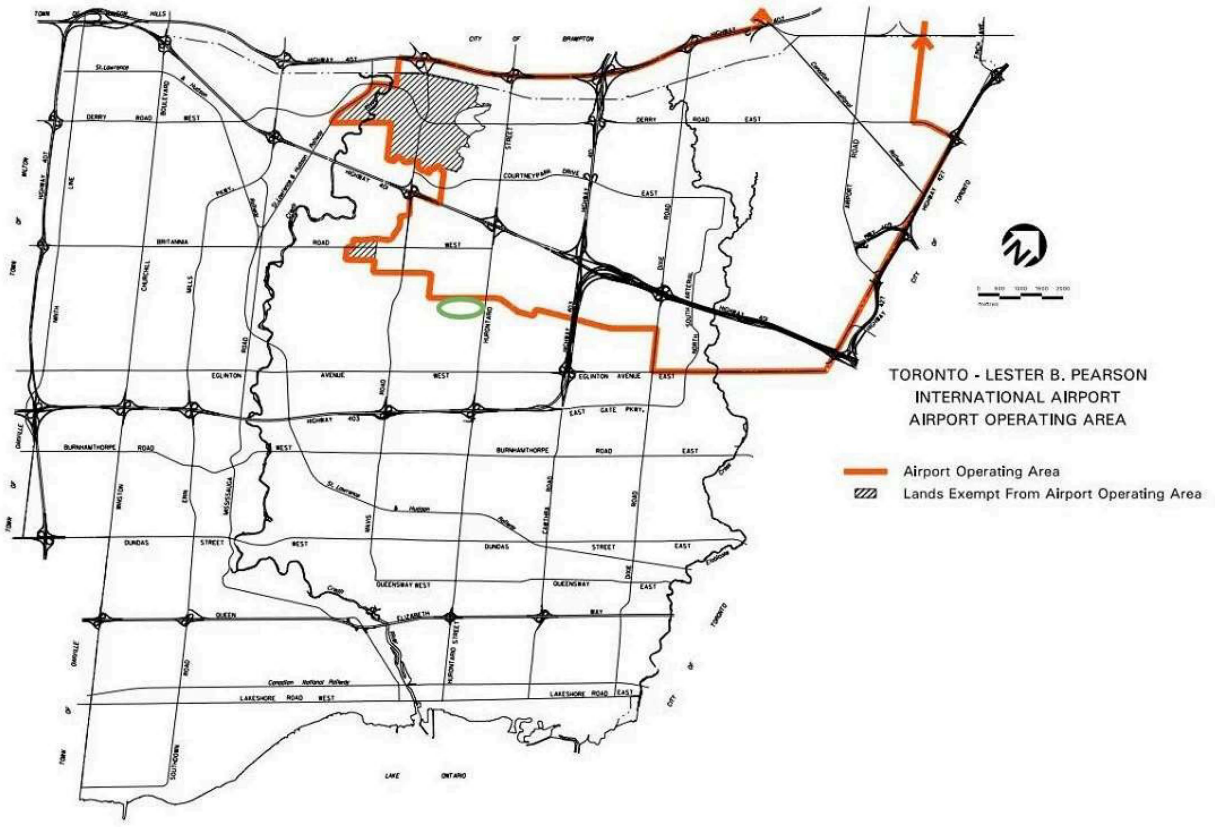
Chapter 8: Create a Multi-Modal City outlines the City's vision for achieving a fine-grain road network that is conducive to active transportation, low traffic speeds, a mix of travel modes and an engaging public realm. Achieving these objectives should be a priority for the future design of the corner development parcel.

Overall, the directions contained in this refreshed Master Plan are consistent with the City of Mississauga Official Plan.

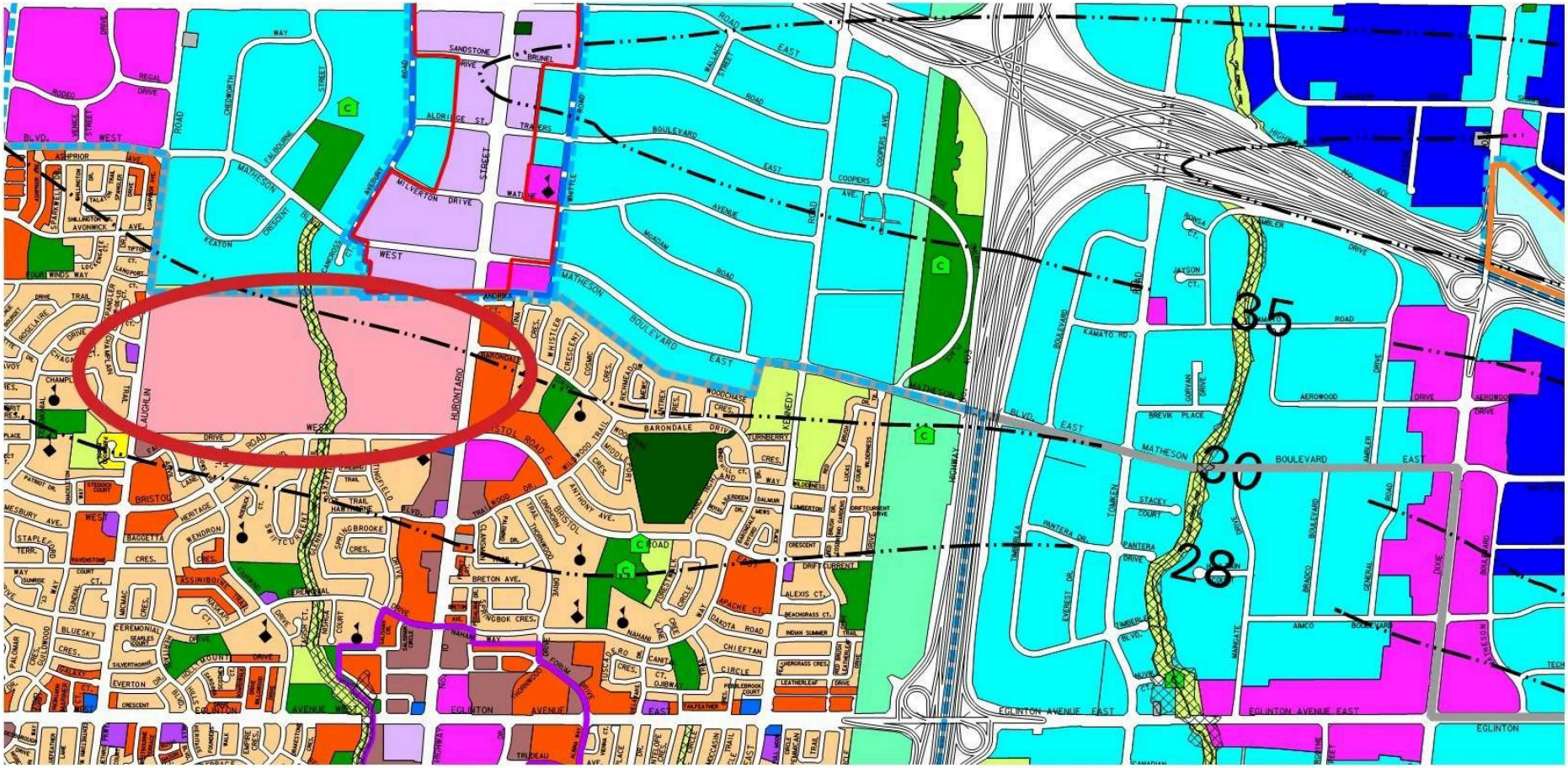
Aircraft Noise Policies

Certain areas of Mississauga are subject to high levels of aircraft noise and as a result Mississauga's Official Plan includes policies that restrict development within these areas, based on the six runway configuration of Pearson International Airport. As per the Map 6-1 excerpt from the Mississauga Official Plan, Britannia Farm is located just outside the Airport Operating Area Policy 6.10.2.1, which places restrictions on residential development and redevelopment and infilling.

Transport Canada's Noise Exposure Forecast (NEF) model is the official methodology used in Canada to quantify noise exposure in the vicinity of airports for land use planning purposes. Mississauga's Official Plan stipulates that residential land use and other sensitive land uses within the 25 NEF contour line or greater will require an Aircraft Noise Study. The majority of Britannia Farm is located between the 28 and 30 NEF/NEP contours.



Mississauga Official Plan Excerpt: Toronto - Lester B. Pearson International Airport Operating Area Map



Mississauga Official Plan Schedule 10: Land Use Designations depicting 1996 NEP/2000 NEF Composite Noise Contours

BASE MAP INFORMATION

- Heritage Conservation District
- 1996 NEP/2000 NEF Composite Noise Contours (30)
- LBPIA Operating Area Boundary See Aircraft Noise Policies
- Area Exempt from LBPIA Operating Area
- Natural Hazards
- Civic Centre (City Hall)
- City CentreTransit Terminal
- GO Rail Transit Station
- Public School
- Catholic School
- Hospital
- Community Facilities

LAND USE DESIGNATIONS

- Residential Low Density I
- Residential Low Density II
- Residential Medium Density
- Residential High Density
- Mixed Use
- Convenience Commercial
- Motor Vehicle Commercial
- Office
- Business Employment
- Industrial
- Airport
- Institutional
- Public Open Space
- Private Open Space
- Greenlands
- Parkway Belt West
- Utility

City of Mississauga Parks and Forestry Master Plan

The 2014 Parks and Forestry Master Plan guides the City's decisions regarding sustainable planning and management of parks and natural areas assets in order to sustain enjoyment by residents and visitors.

This Master Plan considers 5 key aspects:

Intensification: How should the City deliver park services in intensified areas? What are the challenges for developing parks in areas of intensification and redevelopment?

Stewardship: What are the types of partnerships the City should be getting into? What is the right approach and model for partnerships?

How can existing city services and functions be leveraged to support and expand partnership opportunities?

Cultural diversity: How does cultural diversity play a role and influence parks service delivery?

Park development and redevelopment issues: How can the City improve service delivery and address changing demographics and development trends as it relates to park design, development and redevelopment and maintenance?

Quantifying economic benefits of parks: How do parks influence property values; health; municipal revenue among other factors?

Britannia Farm offers a unique partnership opportunity for the City and Board to establish public access, achieving some of the objectives of the Parks and Forestry Master Plan.

City of Mississauga Natural Heritage and Urban Forestry Strategy

The Natural Heritage and Urban Forest Strategy study was approved by Council in 2014. This strategy along with the Urban Forest Management Plan, also approved by Council, will guide the management of Mississauga's Natural Heritage System and Urban Forest in the next 20 years to ensure that they are protected, enhanced, restored and expanded for future generations. The Strategy supports the goals of Britannia Farm educational programming, including raising environmental awareness and promoting educational opportunities related to natural areas.

Mississauga Zoning By-Law No. 0225-2007

Britannia Farm is zoned I-1 (Institutional), an institutional designation unique to Britannia Farm. Cooksville Creek is zoned G1 (Greenbelt - Natural Hazards). A small portion of the northern border of the site overlaps with a Greenbelt overlay. Lands zoned I-1 shall only be used for development in association with Britannia Farm (12.2.3.1.1). The G1 Zone permits flood control, stormwater management, erosion management, natural heritage features and areas conservation. Permitted Accessory Uses are allowed under certain circumstances and include trails, passive recreational uses, fences and parking areas. A new institutional building on the site, such as the proposed field centre, can be developed without necessitating a rezoning of the lands, but may require a minor variance for the specific use/structure.

Mississauga Zoning By-law No. 0225-2007 Map

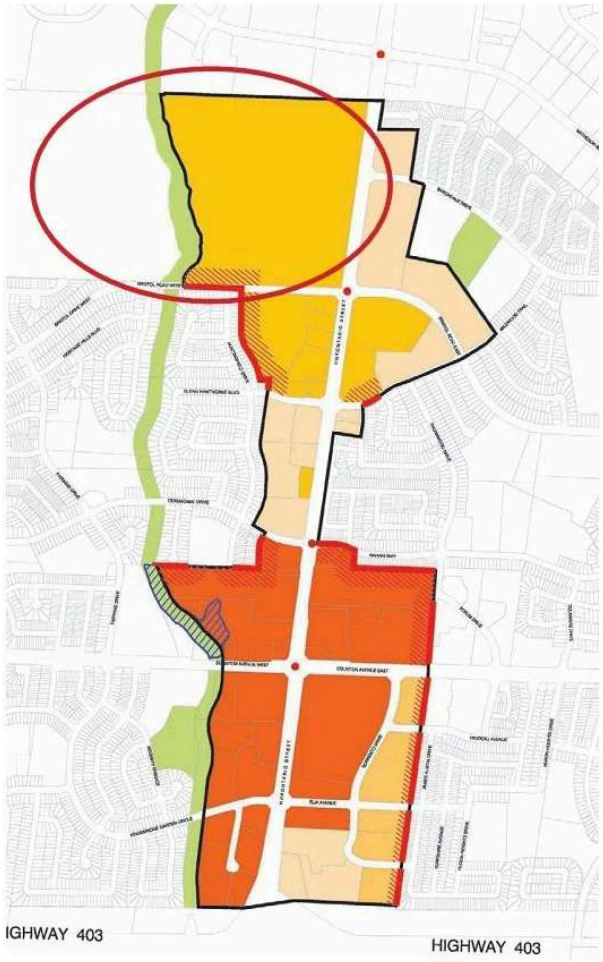
Hurontario/Main Street Master Plan

The purpose of the Hurontario/Main Street Master Plan is to support this major new transit investment through design and density that are context sensitive. The Master Plan therefore includes specific planning and urban design strategies for eleven key character areas along the proposed transit route. Eventually the Mississauga Official Plan will be updated to reflect the direction of this Plan.

The portion of Britannia Farm east of Cooksville Creek falls within the Eglinton-Bristol character area (section 8.5). The area is planned to include two high-density, transit-oriented, mixed-use nodes. The intersection of Bristol Road and Hurontario Street is intended to be a secondary node supporting the primary centre at Eglinton Avenue and Hurontario Street. The plan contemplates considerable development along the eastern edge of the farm between Cooksville Creek and Hurontario Street, institutional and commercial frontages are allowed at this corner. Convertible Frontages are proposed along Hurontario Street and Bristol Road bordering the site. Convertible frontages allow for a broad range of uses that can respond to market demands and neighbourhood evolution over time. Initiatives such as widening sidewalks and enhancing streetscaping and landscaping for buildings located along the street edge will be done in order to promote other pedestrian scale movement opportunities, including active transportation.

The plan shows a 3.0x Floor Space Index (FSI)density on Britannia Farm and maximum height of up to 20 storeys. The Bristol Road frontage requires an intermittent streetwall with 70% minimum continuous street frontage. Buildings must be built between 0 and 5 metres of the street line. The plan proposes improved connectivity within the character area to support the pedestrian environment. As such, a number of connections are proposed within the eastern portion of Britannia Farm where the heritage buildings are currently located (see figure 8.5.5). Finally, the intersection of Hurontario Street and Bristol Road is identified as a Secondary Placemaking Opportunity that can serve as a gateway between the employment areas to the north and the city centre to the south.

To the north of Britannia Farm is the Mississauga Employment Area (Section 8.4). Lands near the farm are intended for considerable intensification, with permitted densities of 4.0 x FSI and heights of up to 15 storeys at the intersection of Matheson Boulevard and Hurontario Street. Buildings at the intersection must be constructed to the street line and provide a continuous streetwall with a minimum 95% continuous frontage.


IGHWAY 403
HIGHWAY 403
78.0m (25 Storey) - 4.0X FSI
63.0m (20 Storey) - 3.0X FSI
39.0m (12 Storey) - 3.0X FSI
13.0m (4 Storey) - 2.0X FSI
Area Subject to Floodplain Policies
Height Transition Boundary
Height Transition Area
Parks and Open Space
Proposed Transit Stop

Map Excerpt from Hurontario LRT Master Plan

Policy Opportunities and Constraints Summary

- The Britannia Farm Master Plan is consistent with the current Institutional designation; a new institutional building, such as the proposed field centre, can be developed without necessitating a rezoning of the lands, but may require a minor variance for the specific use/structure.
- Site plan approval will be necessary for the construction of the field centre building.
- Any development of the Hurontario Street and Bristol Road West corner development parcel will require an Official Plan Amendment, a Zoning By-law Amendment, Site Plan Approval, Draft Plan of Condominium, and/or Draft Plan of Subdivision.
- Any development of the corner development parcel should be responsive to the site's local context as a secondary node associated with the major infrastructure investment of the HLRT and to the surrounding local context.
- There may be sensitivity with residential development on the corner development parcel given the site's close proximity to the Airport Operating Area.
- Overall circulation will need to be explored in terms of both function and design.

4.0 PROGRAM DEVELOPMENT

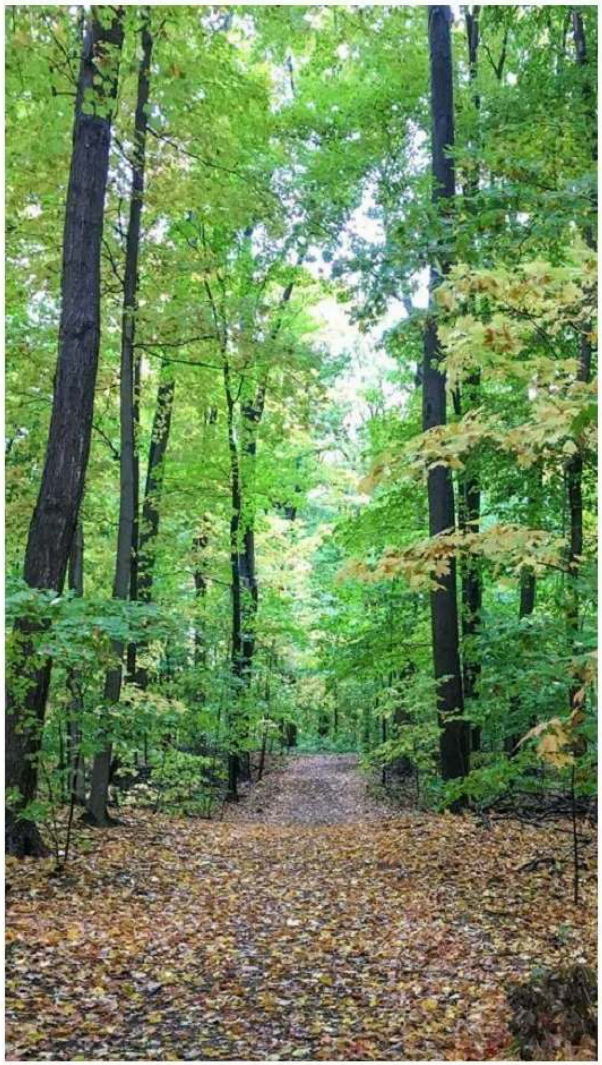
4.1 Peel District School Board Program Development

Program Vision

The transformation of an 70 hectare heritage landscape into a 21st century urban sustainability and experiential learning hub that inspires students and visitors to be active participants in shaping a more sustainable future, while respecting and learning from the past.

The Britannia Farm site is an opportunity for the Peel District School Board to create a 'community connected innovation hub.' This would enable students and staff to explore a broad range of experiential and educational experiences that support the efforts at the Peel District School Board to explore 21st century global competencies and to address student well-being. This amazing place provides a tangible connection to the natural and cultural history of the area, currently offering a well-respected program of creative and place-based education. The re-imagining of this heritage landscape provides the opportunity to integrate a deeply intentional, connected and innovative approach to 21st century learning.

The Britannia Farm refresh provides a unique regional focus, providing accessible outdoor space, and new classroom and meeting space that will serve as flexible learning environments to support a variety of learning styles, educational approaches, and diverse program opportunities. The inherent flexibility of these spaces will permit 'open space' for teachers and students to engage in design thinking and experimentation, with the purpose of nurturing a culture of creativity and innovation. This context will support educators to meet the educational goals of the Ontario Ministry of Education and the Peel District School Board.



Britannia Farm Sugar Bush

Ontario Ministry of Education Vision and Goals

The goals and objectives of Britannia Farm supports the overall vision of the Ministry of Education, and addresses the priorities, commitments and goals of key policy documents. The documents listed below highlight the need for an approach to education that engages with students in an active and critical manner, one designed to enhance learning and that helps prepare students for the challenges and opportunities they will face in the future.

- Achieving Excellence: A Renewed Vision for Education in Ontario, 2014
- 21st Century Competencies: Foundation Document for Discussion, 2016
- Ontario's Well-Being Strategy for Education, 2016
- Community-Connected Experiential Learning, 2016

The overarching goal of these policy documents is to prepare students to be life-long learners, to be confident, resilient and caring citizens, and to solve complex problems associated with living in a globally connected, collaborative and technologically intensive world.

Ontario Ministry of Education Priorities and Commitments

The following are specific Ministry priorities and commitments that directly align with the goals of the Britannia Farm refresh as well as supporting the Peel District School Board's mission, vision and goals for learning:

- Increasing student achievement;
- Cultivating and continuously developing a high-quality teaching profession and strong leadership at all levels of the system;
- All children and students will be inspired to reach their full potential, with access to rich learning experiences that begin at birth and continue into adulthood;
- Improving access to opportunities for real world learning where students learn core competencies such as leadership, project management, researching, communication skills, collaboration, creativity, and art and design. These skills deepen their understanding of the curriculum in the areas of critical thinking, problem solving, numeracy, literacy, and innovation in a way that is authentic and has a lasting impact on the school community;
- Help students build the knowledge and skills associated with positive well-being so that they can become healthy, active and caring citizens;
- Learners in the province's education system will develop the knowledge, skills and characteristics that will lead them to become personally successful, economically productive and actively engaged citizens.

Peel District School Board, Philosophy of Education

The Peel District School Board echoes the goals and objectives of the Ontario Ministry of Education in its emphasis on student success, and its commitment to well-being, achievement and parent, community and staff engagement. The proposed approach of the education programming at Britannia Farm will strongly support this 21st century approach to lifelong learning.

4.2 Program Concept

Starting with an Interpretive Strategy

The development of an interpretive strategy can strengthen and focus the program strategy and is important for determining how an institution is going to communicate with its visitors. What type of learning theories will be utilized? What objects, artifacts, exhibits, and/or programs will be used to deliver content? It also provides a framework for visitors to participate in shaping the identity of the site and helping to determine how the farm connects to local stories of place. Other benefits of an interpretive strategy are:

- Provides definition of the controlling narratives to inform the stories of place and firmly establish an identity for the site.
- Establishes a solid vision for the visitor experience and educational programming that will attract educators and school communities and provide them with a meaningful experience.
- Establishes a direction for generating revenue to sustain the educational programming – this can be achieved through paid programs, social enterprise and third party events that align with the mission, vision and values of the Peel District School Board.

Britannia Farm is positioned to provide a unique learning

GOAL:
High expectations for achievement
Set high expectations for staff and students to ensure all students achieve personal excellence
GOAL:
Parent, community and staff engagement
Engage staff, parents and communities to support student success
MISSION:
We inspire success, confidence and hope in each student
GOAL:
Equity and inclusion
Achieve inclusion for all through continuous progress on equity
GOAL:
Safe, positive, healthy climate/ well-being
Build safe, positive, healthy climates for learning and working to nurture student and staff well-being

experience that recognizes the existing place-based education goals, and to integrate a deeply intentional, connected and innovative approach to 21st century learning. It will provide a dynamic setting for schools and the public to engage in educational programs that weave together the themes of urban sustainability, environmental education, cultural heritage, the arts, and recreation in a meaningful way.

Overarching Goals

- Develop a distinctive brand ('community connected innovation hub') focused on environmental education and urban sustainability;
- Become a provincial leader in the delivery of environmental and outdoor education programming;
- Provide students and educators a unique and innovative educational experience 'in their own backyard';
- Demonstrate sustainability in all aspects of the site's operations and programming;
- Improve the ability to provide year-round programming;
- Improve facilities to increase the overall indoor and outdoor capacity of the site to accommodate more school visits and opportunities for community collaborations.

Program Themes

The following are potential program themes that provide a framework for the educational programming at Britannia Farm. These have been derived from the existing site attributes and combine the current educational goals, objectives, and staff recommendations to look at the site holistically and through an experiential learning lens.

- Urban Sustainability
- Ecology and Environment
- Arts and Culture – celebrating the arts through a diversity of cultural lenses, hosting community and cultural events, arts-infused programming
- Cultural Heritage – traditional lands, agriculture, schoolhouse
- Recreation

4.2.1 Site Attributes and Program Opportunities

Site Attributes

The following attributes and unique features of the site support a variety of program opportunities. These are:

- Cooksville Creek and Riparian wetland
- Old Britannia School House
- Britannia Farmhouse
- Britannia farmstead
- Gardner-Dunton House
- Conover Barn
- Agricultural fields
- Hedgerows
- Laneway
- Raspberry cultural thicket
- Community garden plots
- Hardwood forest edge
- Sugar Bush, mature forest and sugar shack
- Tableland Wetland

Cooksville Creek looking north from the footbridge

Program Opportunities

The following are suggested program opportunities that span both the school and public programming realms:

- Schools Program– elementary and secondary
- Visiting Schools and Camps Program – opening the site to post-secondary, private schools, daycares, camps, and home schooling groups
- Camps
- Professional development - Teacher training opportunities
- Events and conferences
- Community programs (e.g.. Nature walks, “Classrooms without walls,” promoting the night walk activity “passeggiate notturne,” and naturalist and ornithologist groups)
- After school programs

Alternative Program Staff Recommendations

The following are amenities and suggested experiential learning opportunities recommended by Alternative Program staff working at the Britannia Farm site that would build capacity for school programs and visitor engagement and that support Ministry of Education and Peel District School Board goals for 21st century learning (for more details please see the 2010 Alternative Programs Proposal):

- Field Centre – Britannia Urban Wilderness Centre
- Student Developed Trail System
- Outdoor Classroom(s)
- Picnic Shelter(s)
- Forest Nursery
- Gardens
- Accessible Washrooms
- Gardner-Dunton House – renovated and classrooms added
- Conover Barn – restore for use
- Demonstration Space
    - Permaculture Demonstrations
    - Horticultural and Landscaping Skilled Trades Demonstrations
    - Renewable Energy Demonstrations
- Lab/Exploratory Space
    - Flexible space, open to interpretation/sharing – students can design learning there for other students.

Oberlin College Environmental Center featuring sustainable building practices

Participatory learning by doing

Bareroot nursery

Outdoor and informal classroom setting

4.2.2 Other Suggested Learning Opportunities by Theme

Urban Sustainability

- Demonstrated conservation and green technologies
- Green building design
- Solar power
- Composting and waste cycling
- Water harvesting and grey water recycling systems
- Food security – contemporary urban agriculture practices
- Ecological footprint
- Stewardship –creating a culture of care and responsibility

Britannia Farm could be recognized as a showcase site for urban sustainability, becoming known as the region's largest demonstration of renewable energy, LID (Low Impact Design) innovations, green building design and water saving technologies The farm is an ideal setting for teaching students about alternative energy; solar thermal, photovoltaic (solar electric), wind and biomass.

Ecology and the Environment

- Citizen Science opportunities
- Restoring, monitoring, and maintaining habitats
- Wetland and riparian restoration
- Meadow restoration
- Stream studies
- Forest succession studies

Students establishing a deeper understanding of their environment

Cultural Heritage

- Sugar bush
- Agricultural and farming practices
- Community gardens
- Cultural landscape features – hedgerows, windbreaks, etc.

A gardening hub for outdoor and indoor growing

Arts and Culture

- Music, visual and performing arts using the natural and cultural history of the site as inspiration
- Green Arts Program
- Crafts and other activities using found and recycled materials

Children's Festivals serving the broader community and their families

Recreation and Wellness

- Promote an appreciation of the Farm through recreational and physical education activities
- Trails – fitness trail, orienteering course – serving single and multi-function purposes
- Walking, hiking, jogging, dog walking, cross country skiing

Promotion of recreational acitivities in all seasons and weather conditions

4.2.3 Educational Program Scenarios

Each program theme emphasizes the individual's role and responsibility in maintaining a healthy environment through sustainable living practices. The existing programming at Britannia Farm is meaningful, engaging and the staff and students appreciate the opportunity to engage in stewardship and conservation activities, and also explore their cultural heritage.

Learning happens in many ways, and ensuring that learning is connected to the wider world and the community is one of the goals of this refresh. Beginning with the actual journey to the Britannia Farms Field Centre, students and teachers will consider how to integrate conservation and sustainability into their everyday lives. Students from the Peel District School Board will arrive at the farm by public transit – utilizing forthcoming Hurontario Light Rail Transit (HLRT) they will experience an earth-friendly, low-carbon and sustainable mode of transportation. Upon their arrival at the site, they will gather at a Platinum LEED certified field centre powered by a sophisticated demonstration of renewable energy sources and low impact design solutions (LID) – solar, wind and green roof technologies. The goal is to provide students with an experiential learning experience from the time they leave their homes till they arrive at this premiere environmental education centre in the heart of Peel.

To guide the evolution of Britannia Farm as a unique educational institution, utilizing the framework of 21st global competencies will provide an innovative and creative framework for the following possible spaces and uses. These uses can evolve over time:

Children's Garden

Create a year-round designated lab space for outdoor learning and play designed with children for children to harness their natural curiosity and imagination. A living lab for future city builders - part classroom, and part playground - this space is dynamic and ever changing, and a gateway to a more complete farm experience. This space would become a central hub for on-site children's programming, and for researching and developing innovative ideas that can be transferred to schools across the district.

Early years outdoor education harnessing curiosity and stewardship

An 'outdoor classroom' setting inspiring connections to the environment

Learning Outdoors in the Early Years

Establish professional development programs to demonstrate and model play and inquiry-based approaches to learning in the outdoor classroom. This approach to natural learning would welcome preschools, kindergarten and grade 1 classes, after-school programs, and accredited training for teacher and ECEs.

Co-Creating Learning Partnerships

The Britannia Farm staff could work in partnership with teachers and students in different subject areas to develop learning opportunities and help to guide the design and use of the space. These might include summer institutes, and working with Horticulture and Landscaping teachers.

Peel District School Staff low ropes training session

Professional Learning for Educators

Design and deliver unique professional development that builds skills and knowledge for educators to consider their practice through the 21st global competency lens.

Peel Dristrict School staff participating in an outdoor staff meeting

Community Partnerships

Collaborate with local cultural groups and indigenous partners to co-create the design and programming of the cultural landscape. Engage parents in experiencing Outdoor Play and Learning programs, such as Sprouts, the early years program at Evergreen Brick Works, and to better understand the innovative learning approaches at the Farm.

Fostering community partnerships through land stewardship

Innovative Student Learning

Designing education to better understand 21st century global competencies. For example, that allows students to design their small group learning, work with community partners and to understand their role as global citizens.

Creative learning through experience

Wellness Programming

Lead wellness mini-retreats for students and teacher in partnership with Physical Education programs.

Inspiring different alternatives of what a 'classroom' can be

5.0 THE REFRESHED MASTER PLAN

5.1 The Plan

The significance of the Britannia Farm property is due not only to its provenance and existence today, or its sheer size (more than twice the size as Jack Darling park on the waterfront, larger than Riverwood and about the same size as BraeBen 18 Hole Golf Course) or even to its location on Mississauga's "main street" with light rail transit but to all of those assets in addition to its naturalistic varied landscapes. Unlike a typical park or a golf course, the Britannia lands are an important collection of ecological areas that provide important ecosystem functions and habitats for a wide variety of common and threatened species. Surrounded as it is by a growing city, the Britannia Farm property is an "urban Galapagos" offering opportunities for studies and experiences that are not available elsewhere in Peel.

The details of the refreshed Master Plan are articulated in the pages that follow including the following "Big Moves" that set the Plan in motion:

- Establishing a field centre
- Re-locating the farmstead to accommodate the development parcel, and
- Public access to the property

Master Plan Key Moves

1. **Farmstead Relocation & Grounds Enhancements**
2. **Demonstration Fields**
3. **Britannia Common Events Lawn**
4. **Improved Farm Lane**
5. **Low Impact Development Parking Lot**
6. **Community Gardens**
7. **Riparian Restoration**
8. **Upgraded Creek Footbridge**
9. **Observation Points**
10. **Cooksville Creek Recreation Trail**
11. **Wetland Restoration**
12. **Field Centre**
13. **Field Centre Grounds**
14. **Ecological Linkages**
15. **Successional Meadows**
16. **Nature Trails**
17. **Woodlot**
18. **Sugar Bush**
19. **Sugar Shack**
20. **Bus Drop-off & Parking**
21. **Outpost Shelter**
22. **Vehicular Access & Enhanced Entrance**
23. **Agricultural Fields**
24. **Forest Nursery**
25. **Neighbourhood Parks**
26. **Midblock Connections**
27. **Landscape Buffer**
28. **Development Blocks**

MATHESON
McLAUGHLIN
HURONTARIO
BRISTOL

5.2 The Framework

The Plan has been developed considering the approach to the property as a whole. Each element of the landscape or piece of infrastructure works together. While the property is one special place, given the variety of landscapes and experiences, it can be more easily digested if considered by "zone". Zones have been established on the main Farm property based on their character and activity, in addition to the development parcel and connecting trail network. They are defined by the landscape including the hedgerows and farm lane, which have acted as an organizing feature on the lands since its earliest farming days.

The Key Moves for each zone are described in the following sections with an annotated plan. Where further descriptions or direction are warranted, they are provided following the annotated plan.

1. Historical Zone

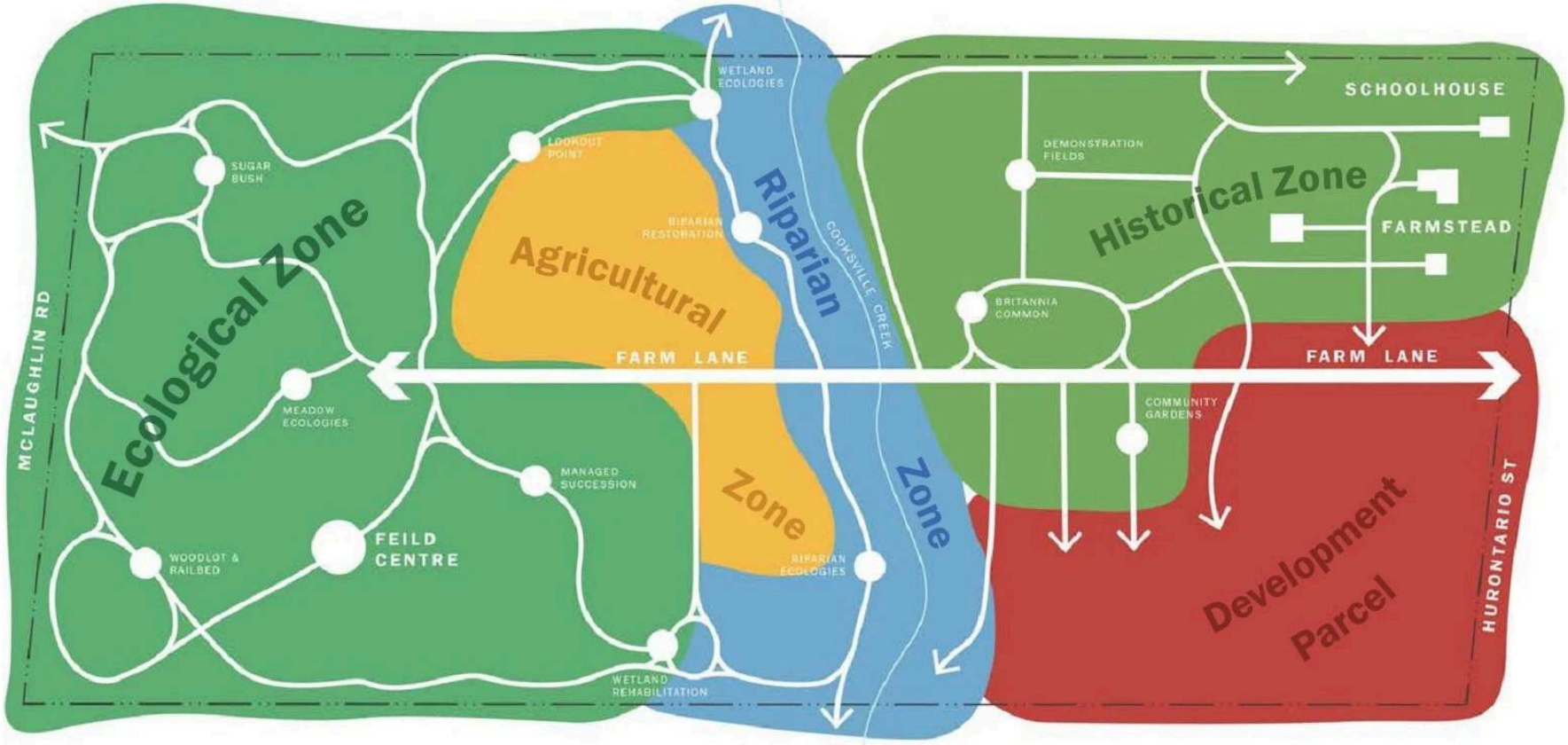
2. Riparian Zone

3. Ecological Zone

4. Agricultural Zone

5. Development Parcel

6. Trail Network


MCLAUGHLIN RD
Ecological Zone
SUGAR BUSH
MEADOW ECOLOGIES
MANAGED SUCCESSION
FEILD CENTRE
WOODLOT & RAILBED
WETLAND REHABILITATION
LOOKOUT POINT
RIPARIAN RESTORATION
Agricultural Zone
WETLAND ECOLOGIES
RIPARIAN ECOLOGIES
Riparian Zone
COOKSVILLE CREEK
FARM LANE
SCHOOLHOUSE
DEMONSTRATION FIELDS
Historical Zone
FARMSTEAD
BRITANNIA COMMON
COMMUNITY GARDENS
FARM LANE
Development Parcel
HURONTARIO ST

5.3 Historical Zone

The Historical Zone links past and present, abutting the evolving city along Hurontario Street and the development parcel to the south.

The 1989 Plan recommended that additional heritage buildings be established on the site. The Gardner-Dunton House and Conover Barn were successfully moved to Britannia Farm in the early 1990s. Together with the Schoolhouse and Britannia Farm house the cluster provides an opportunity for students to experience a "day-in-the-life" of a 19th century rural community. The Historic Zone also includes approximately 12 acres of farm field, the Britannia Common and community gardens.

Key Moves

Farmstead Relocation & Grounds Enhancements

The three historic farm buildings will be shifted north, closer to the Schoolhouse. As the buildings and their grounds will now be in closer proximity, an update to the connected landscapes is recommended.

Demonstration Fields

Approximately 12 acres of agricultural fields will be connected with the historic farmstead.

Britannia Common Events Lawn

A new gathering space for events.

Improved Farm Lane

The existing historic Farm Lane is retained through the development site and continuing into the Historic Zone. This historic corridor links the various zones together and by connecting the Farm property to Hurontario Street, it links the past to the present. It is a key element in the trail network.

Low Impact Development Parking Lot

The Board's overflow parking lot should be upgraded to low-impact development standards for stormwater runoff and provide greater buffering at the edges to screen views from the Farm.

Community Gardens

Lands that will remain part of the Britannia Farm but are otherwise constrained by the creek, Farm Lane and the development parcel are appropriate for semi-public use, such as community gardens.

5.3.1 The Farmstead

The establishment of the development parcel requires that the farm buildings be relocated on the property. A Heritage Impact Statement prepared in 2010 recommended the buildings be shifted north, roughly retaining their current relationship with each other and, importantly, with Hurontario Street. The cluster does not claim to authentically replicate a 19th century farmstead but the proximity of the two houses, barn and schoolhouse allow the delivery of a richer and more efficient historic programming.

The **Britannia Schoolhouse** remains in its current location. The Schoolhouse grounds (playing field) remain unobstructed for 19th century games, outdoor lunch, and events.

The relocated **Gardner-Dunton House** is restored to provide a snapshot of rural living in the 19th century. The ground floor will be the primary focus of the heritage restoration with era- appropriate furnishings and fixtures. The upper levels can be used for storage and administrative space if needed. The grounds should include development of era-appropriate gardens including perennial and vegetable gardens, typical to rural homes.

Historical Zone Key Map

1. Britannia Schoolhouse
2. Conover Barn
3. Gardner-Dunton House
4. Britannia Farmhouse
5. Demonstration Fields
6. Britannia Common
7. Headwater Drainage Feature
8. Community Gardens

The relocated **Conover Barn** will continue to provide its intended function as a rural out-building for the storage of farm equipment. The large raw space can provide shelter for groups attending the historic programs during inclement weather.

The condition of the original **Britannia Farmhouse** is such that the historic integrity of the interior is not conducive to restoration for historic programming. It should be upgraded to continue to provide administrative space for Board and historic program needs. The building itself contributes to framing the overall historic cluster and its grounds should also be updated to demonstrate historic approaches to rural residential landscaping including windbreaks and the use of deciduous trees for passive solar energy and shade.

Headwater drainage feature in foreground looking south

5.3.2 Demonstration Fields

The fields west of the farmstead cluster are an opportunity to maintain a connection between the historic buildings and agricultural fields. They can be used to demonstrate traditional methods of cultivation alongside more contemporary technique. They are also an opportunity to showcase growing of foods from different cultures. As a result these fields provide the opportunity for intermingling of both the historic, traditional programming and programming focused on modern ecological and multi-cultural approaches.

Experimental tests plots

A grassed lawn for flexible programming and outdoor festivals

Experimental tests plots

A heritage garden showcasing gardening practices from another era

5.3.3 Britannia Common

The new Britannia Common events lawn will be a grassed area that provides a large gathering space for school and community events, such as a farmer's market. A small wooden stage could create a place for outdoor performance. The simple grass ground cover is easily mowed using farm equipment and is defined and surrounded by low-scale hedge plantings common to rural landscapes. The entrances to the Common should be punctuated by taller species. The lawn could be lined with native flowering species. The Common is located near the main Board office parking facility, and on the Farm Lane which connects to Hurontario Street and the LRT and so is a logical place for picnic lunches, May Day celebrations associated with the historic farmstead and community festivals.

5.3.4 Headwater Drainage Feature

There are headwater drainage features that cross the Demonstration Fields and Britannia Common and currently outlet to Cooksville Creek. These features contribute water, and beneficial sediment and organic material into Cooksville Creek. Through enhancement (i.e., discontinuing active agriculture and installing native plantings in the vicinity of the drainage features) their function can be increased. These headwater drainage features are currently linear Cattail marshes, which may provide limited amphibian breeding habitat in some years. Any potential future enhancements to Cooksville Creek will improve those functions and will require integrated design activities and initiatives from a team of fluvial geomorphologists, hydrologists, engineers and ecologists. Detailed planting plans for the Demonstration Fields and design of Britannia Common should address the unique protection and enhancement needs of these landscape features.

5.3.5 Community Gardens

The small field between the farm lane, creek and the development parcel is appropriate for semi-public uses that act as a buffer between the development parcel and rest of the property. The gardens could be run by the Board or through partnerships with local organizations. Several plots should be retained for use by local schools, who can participate on the property independent of pre-planned and paid field trips. A small parking area serving the gardens should be accessible from the development parcel street network.

5.4 Riparian Zone

Britannia Farm is located within the Cooksville Creek watershed and features Cooksville Creek, which bisects the property. The Creek is a unique natural heritage feature of the site that offers myriad opportunities for education, habitat restoration, and recreation.

In addition to the restoration and enhancement of Cooksville Creek, two vestigial wetlands will also be restored to provide additional wetland habitats for further study. Work on the site related to wetlands also uncovers exciting opportunities to partner with Credit Valley Conservation to assist with implementing a restoration program.

Key Moves

Riparian Restoration

Restoration of the creek will continue with appropriate planting to encourage slope stabilization and habitat development. Consider partnerships with Credit Valley Conservation Authority to assist with restoration program.

Upgraded Creek Footbridge

The existing bridge condition will be upgraded for aesthetic and safety purposes. Railings should be added to complement the rural setting while providing safe passage for people and farm vehicles.

Observation Points

Two observation decks will allow students to get close to the creek without disturbing sensitive habitats. At least one of the platforms should be provide barrier free access.

Cooksville Creek Recreation Trail

The City of Mississauga Official Plan indicates a potential trail connection along the creek through the Britannia Farm lands to connect with existing trails. Such a trail should be developed with appropriate distance from the creek slope and access at Bristol Road. Signage should be added to this access.

Wetland Restoration

Two vestigial wetlands should be restored to provide wetland habitats for further study. Consider partnerships with Credit Valley Conservation Authority to assist with restoration program.

5.4.1 Wetland Restoration

A small Silver Maple mineral deciduous swamp (SWD3-2) persists west of Cooksville Creek and north of Bristol Road. A review of historic mapping and aerial photographs, reveals that this small feature was fed by a surface water catchment extending north into lands now developed with industrial uses. During 2016 site surveys a headwater drainage swale was observed to be feeding flows to the remnant Silver Maple mineral deciduous swamp from a Cattail mineral shallow marsh/Reed-canary Grass mineral meadow marsh at the north end of the property. Lands immediately east and north of the Silver Maple mineral deciduous swamp possess hydric or wetland soils, reflecting former wetland conditions. Those hydric soils present an opportunity for wetland restoration that may increase the size, diversity and functionality of the wetland communities in this area.

To further test the feasibility of wetland restoration in this area, wetland catchment mapping be completed (i.e., map the wetland drainage area) and that a wetland water balance be prepared for existing and future developed conditions. This work will help define hydrologic requirements of existing and restored wetlands and whether the wetland communities can be linked or merged to create a larger, contiguous wetland. Should it be demonstrated that suitable wetland hydrology can be established, active agricultural practices should be discontinued on the hydric soils, to allow natural succession to advance the re-establishment of wetland vegetation conditions. The natural succession can be monitored, and supplemental plantings can occur, if necessary to accelerate the establishment of wetland conditions.

The Silver Maple mineral deciduous swamp is located in close proximity to the Cooksville Creek corridor and opportunities to provide a natural connection (upland, wetland) between these two features should be explored.

5.4.2 Cooksville Creek Restoration

In the 1980's the Cooksville Creek corridor through the property was channelized and the banks were "hardened" with concrete and rip-rap. Future land development to the north drains into Cooksville Creek, including a stormwater management pond (SWM), currently under construction, north of Matheson Blvd. A water flow control device was installed at the southern end of the creek on the Farm lands. Opportunities to reduce hardened banks and to connect the creek with the shoreline/floodplain through the creation of online pools and marshes should be explored. These new floodplain habitats, depending on the depth and duration of ponded water could provide amphibian breeding habitat and/or turtle overwintering habitat. This portion of Cooksville Creek is fishless and amphibians can therefore be supported. Riparian corridor enhancement should also consider planting of native shrub and tree species to increase habitat complexity by creating opportunities for shade and organic resource inputs. Any trail should be located on tableland outside of the riparian corridor and floodplain.

Wetland restoration and interpretation

Observation point and rest stop

Creek restoration with volunteers

Wetland habitat education: Oak Hammock Marsh, Manitoba

Getting up close and personal

5.5 Ecological Zone

The Ecological Zone provides a distinct contrast to the open and human-created landscapes of the Historical and Agriculture Zones. It includes examples of nature's beauty and resiliency at all scales: from the tallest trees to the smallest snail, from the maple sap running to a small animal's burrow. The Ecological Zone requires little intervention to initiate a rich program of nature and ecology study but over time key moves can enhance the landscape and expand the range of experiences on offer.

Within the areas of the Ecological Zone described below (meadow, woodlot, successional areas), the features of the landscape can be used to create local places, breaking down the scale of the zone.

Key Moves

Field Centre & Grounds

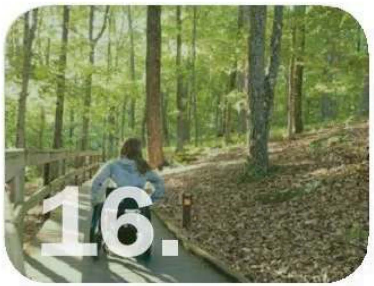
A field centre building will become the heart of the Britannia Farm property from which all programs, save the historic program, will emanate.

Ecological Linkages

Natural linkages between ecological features such as the woodlot, wetland and creek will create habitat corridors and provide greater visual diversity across large expanses of agricultural fields.

Successional Meadows

The meadow will continue to be an area of managed succession, as will the large field south of the farm lane.



Nature Trails

Trails through the woodlot, sugar bush and to the fields, wetland and creek will be developed with appropriate consideration for sensitive ecologies.

Woodlot, Sugar Bush & Sugar Shack

The wooded areas will be maintained and encouraged to expand through natural succession. An updated Forest Management Plan will be implemented to maintain the health of the woodlot and safety of those enjoying it.

Bus Drop-off & Parking

The field centre will be serviced by a bus drop-off loop and service parking area.

Outpost Shelter

Use the topography of the land to establish a shelter structure that provides a viewpoint over the Farm and of the surrounding city with a simple shelter and storage below, built into the contours.

5.5.1 Field Centre

The heart of the Britannia Farm property will be the proposed field centre building. This building will be located in close proximity to the many varied landscapes that converge in the west end of the property: the agricultural fields, the meadow, the sugar bush and the woodlot. It will provide a clear place of arrival for students and visitors to the ecological programs, including the sugar bush, and one that is clearly differentiated from the historic programming focused on Hurontario Street. It will house the offices of the Alternative Programs staff, providing an inspiring place from which they can build student experiences. It will act as a warming station in the winter and a cool shady respite in the summer.

a) Hierarchy of Space

A hierarchy of spaces will flow out of the Field Centre hub. The building itself offers a completely enclosed and secure learning environment, controlled by PDSB staff. The immediate grounds and landscape surrounding the building should be programmed with features that connect directly to the building, require its services. The grounds can be organized with defined boundaries created by program features (planters etc.) or landscape design (fencing, tree breaks) to provide a place where the youngest students can explore in a space scaled for discovery without being overwhelming. Beyond the immediate grounds, the fields or successional meadows offer places for greater independent exploration for older students while still maintaining a visual connection to the building. Finally, the vast and varied landscapes of the rest of the property beyond can be explored independently or with supervision as appropriate.

Field Centre Key Map

1. **Field Centre**
2. **Outdoor Kitchen**
3. **Nature Playground**
4. **Themed Gardens**
5. **Rain Harvesting Garden**
6. **Shade Garden**
7. **Bus Drop-off Loop**
8. **Parking Lot**

b) Building Program

The building program will be determined when the project is ready for implementation, but should include consideration for:

- four classrooms;
- offices;
- washrooms;
- equipment storage;
- a kitchen to support a catering function and or preparation of foods cultivated on the farm by students; and
- an open gathering space that can support multiple classes in the space or be set up for Board or community events. This space can bring together the broader PDSB community and local community groups. The open space should have direct access to an outdoor gathering area.

c) Building Design

As the entire property is a learning opportunity – a living laboratory – the field centre building itself should also demonstrate an environmental ethic and sustainable development approach. The building should be a model of energy and water conservation, making use of innovative technologies and design features such as:

- siting and landscaping for optimal passive solar energy;
- solar panels for active solar energy;
- active ventilation for heating and cooling;
- geothermal energy;
- extensive glazing through windows, skylights and light wells for natural light;
- greywater recycling through living machine, septic bed, or similar;
- improved interior air quality through living wall;
- recycled or reclaimed materials, low-no VOC finishes;
- extensive green roof; and
- bird-friendly glazing.

Typically, the upfront capital costs of such sustainable building technologies are greater than traditional construction but offer rewards in operations and maintenance (low to no heating, cooling and electrical bills) below those of typical construction.

The building design should draw inspiration from the surrounding landscape and gently fit within it. Each of the specific location options described below anticipate natural and/or managed succession enveloping the building over time. A modern, naturalistic approach to the building's architecture will further set it apart from the Historical Zone buildings and programs. Attempting to recreate a rural vernacular is not recommended.

Bill Fisch Forest Stewardship and Education Centre (net-positive energy building): Whitchurch-Stouffville, Ontario

LEED Platinum Bob Jones Nature Center: Plano, Texas

Field Centre Grounds

The grounds around the field centre are an important component of the overall program offering at Britannia Farm. In addition to outdoor spill-out space such as a terrace, the grounds are an opportunity to demonstrate small scale growing, landscape approaches and habitat and provide younger students with a safe place for independent exploration. The details should be based in program delivery and can rotate or evolve over time if the basic space and infrastructure is provided. Options include:

- A fire pit clearing can be prepared and maintained by students for use during all seasons of programs. Once established the location may change as the use of the property is better understood.
- An outdoor kitchen and bake oven can connect the growing of food on the property to its preparation and sharing. It can be used for school and community events; and
- A range of gardens can be planted in ground, in raised accessible beds, and in “found” materials including barrels, watering troughs, etc. Such gardens and planters can focus on various plant communities such as:
    - edible and herb gardens that merge with the agricultural and food source theme of the property;
    - pollinator garden to support bee and butterfly populations;

Evergreen Brickworks children's garden: Toronto, Ontario

Nature at the doorstep

Greenhouse for all growing all year long

Raised garden planters to maximize space ease of care

- shade garden focusing on species that thrive in cool shady places; and
- sensory garden inviting students to smell, touch, and even taste the plants.

The grounds also feature the exterior sustainable elements associated with the building such as rainwater harvesting, a solar array and a compost pile, storage shed and greenhouse.

A bus-drop off loop that can accommodate 3 school buses and limited parking for accessibility and maintenance vehicles should be located in close proximity to the building with landscape screening.

A larger parking lot sized appropriate to the building should be located further away along the new driveway and further screened from the building. This ensures both an appropriate walk-in experience for most visitors and preserves the natural setting of the building and its grounds. The parking lot is not intended to provide parking for any very large events that may take place at the Field Centre building. Should such cases occur, it is recommended that the main Board parking lot off of Matheson Blvd. be utilized with a shuttle to the building if the use of the walking trails is not appropriate.

Outdoor classroom capable of supporting activities in various weather condtions

Pollinator garden supporting bees and hummingbirds

Sensory gardens showcasing the unique and diverse characteristics of plants

d) Field Centre Location Options:

Options for locating the field centre west of the creek include:

1. the field north of the farm lane,
2. the field south of the farm lane, and
3. the small triangular field south of the meadow.

The specific location of the field centre in the western portion of the site should be selected based on the best combination of a series of considerations. New access to the proposed field centre will be required. Additional studies (e.g. Transportation; servicing; natural heritage) will need to be undertaken to determine the final preferred location, which will also be informed by the following considerations:

Natural Heritage Impacts:

The building should be sited to have minimal impact on sensitive habitats and ecological features, taking into account ecological designations in the Region of Peel or City of Mississauga Official Plans, and any requirements under the Endangered Species Act. The Regional Official Plan designates the Woodlot and Sugar Bush areas as Natural Core area, a designation which does not permit development of any kind. Under the Endangered Species Act, targeted grassland bird breeding habitat survey should be required for the cultural meadow, and maternal bat roosting surveys would be required in the woodland and adjacent hedgerows, before any development decisions could be made. If significant habitat for or these species are found, Endangered Species Act authorizations would be needed. Under CVC authority, if significant natural heritage features are developed, ecological compensation may be required, as determined through an Environmental Impact Study.

Proximity to Key Landscape Zones and Program Areas:

For ease of delivering programs on a regular basis, the building should be located within a child's comfortable walking distance from key program areas such as the Sugar Shack or creek overlook platforms.

Appropriateness of Setting:

The field centre should feel as if it is a natural outcrop of the landscape. The setting should allow room for activities and program areas directly related to the Centre or requiring its services or equipment, but should not be so open that the scale of the setting is in marked contrast to the scale of the building.

Views:

Views from the building should be expansive and allow for observations of the natural world to be made from inside. Views of the surrounding urban development, both on and off the property should be minimized by making use of the existing hedgerows, windbreaks, and topography to the extent possible. Additional planting may be necessary to improve screening.

Municipal Services:

While an off-the-grid building may be possible, initial siting should consider connections to municipal services and utilities (water, sewer, hydro, communications etc). These typically follow road alignments and so may be brought to the building from McLaughlin or Bristol Roads. Municipal services routing and distance will be a consideration in final site selection and will have to balance costs with minimizing landscape intrusion.

Arrival Sequence, and Emergency Access:

At a minimum the field centre will need an emergency access (fire) route that can also serve as a maintenance route. This will also become the front door to the field centre. Options are limited to access from Bristol or McLaughlin Roads. While access from McLaughlin Road offers a more immediate immersion into a natural setting, it does so while taking away from the cohesiveness of that natural area, and may not be permitted by the Region or CVC. Access from Bristol Road is possible via the existing signalized intersection at Swiftcurrent Trail. To maintain the magic of the field centre setting enveloped by the natural landscape, any vehicular infrastructure should be well screened. A new "farm lane" extending from Swiftcurrent Trail should have a narrow rural character (no curbs, gravel) and be lined with trees. Where the new lane crosses the natural heritage linkage area between the restored wetland and creek it should disturb this connection minimally. Options for the driveway to pass either north or south of the restored wetland should be considered so that this habitat is minimally disturbed. Culverts or other engineering approaches should be used to ensure hydrological connectivity. The driveway should terminate in a pick-up/ drop-off area to accommodate two buses, temporary parking for maintenance vehicles and accessible parking spaces.

Parking:

In anticipation of use of the field centre for non-school program events (Board or community-based) a parking area should be developed in proximity to the field centre but visually screened from it. Field 2 offers space to establish a parking area regardless of the final location of the field centre. Sensitive natural areas should not be given over to parking. The parking area should feature pervious paving, bioswales to catch and filter any storm water runoff, and be heavily treed for shade and to maintain the naturalistic setting. The field location offers opportunity to expand the parking area over time should the building program or scale of anticipated events grow over time.

A matrix of considerations for each potential location is provided in the Appendix.

Preferred Option:

Based on urban design and natural heritage considerations, the preferred field centre location is Field 3. Detailed technical reviews for servicing and transportation may impact this recommendation. This Field is currently in agricultural use so the footprint of the building and its immediate surrounding grounds will have little impact on sensitive natural areas. However, this location does preclude allowing Field 3 to fully transform into interior forest habitat. The scale of the field is more intimate than the larger Field 2, allowing for a significant amount of program space to be provided within an area already contained by hedgerows, the meadow and the rail bed woodlands. In addition to creating a sense of an outdoor room, these densely vegetated areas provide visual screen both too and from the field centre. Additional planting may be needed along the southern property line to improve screening to the residential uses. The arrival sequence for this location would start with a new driveway extending north from the intersection of Bristol Road and Swiftcurrent Trail. The driveway would turn west and cross the hedgerow well north or south of the restored wetland.

A parking area could be provided off the driveway, which will terminate in a turnaround at the next hedgerow. This driveway would be of a rural character, lined with trees, offering views of the fields beyond. Walk-in access would also be feasible from a McLaughlin Road, if, for example, the existing bus turn-around were maintained.

View from the preferred field centre site

5.5.2 Ecological Linkages & Natural Succession

Ecological linkages (natural vegetation corridors) are planned to support movement of animals between natural habitats. The width of these corridors will be determined at detailed design stage, at a minimum a 30 m corridor is recommended. A northern ecological linkage is planned to connect the Sugar Bush to the wetland restoration area and the Cooksville Creek Corridor. A southern ecological linkage is planned to connect the southwestern woodlot to the wetland restoration/enhancement area and Cooksville Creek Corridor.

The western portion of the property provides excellent opportunities for natural succession (i.e., raspberry cultural thicket - triangular space surrounded by the woodlot and abandoned railway bed) and ecological enhancement (e.g. native tree and shrub) plantings. The diversity of native vegetation communities (i.e. meadow, thicket, forest) will support a diversity of animals and birds throughout their life cycle (i.e. breeding, shelter, foraging). There are numerous opportunities for student engagement in habitat creation (i.e. vegetation communities, wildlife structures), ecological monitoring (i.e. natural succession vs. managed succession), plant and wildlife identification, etc. in this area.

Ecological & Successional Key Map

1. Successional Meadows
2. Successional Transect Path
3. Hedgerows
4. Driveway to Field Centre
5. Agricultural Fields
6. Ecological Linkages
7. Observation Points
8. Wetland Restoration

Over the longer term (50+ years) these early successional habitats will become forested communities, contributing to a larger contiguous forested block, with an increased interior area. Forest interior provides microhabitats (e.g. wet pockets, conifer patches) that some area sensitive bird species depend on for foraging and nesting. Species supported include Caltharus fuscescens (Veery), Hylocichla mustelina (Wood Thrush), Hylatomus pileatus (Pileated Woodpecker), and Contopus virens (Eastern Wood-Pewee).

Ecopassages (i.e. wildlife culverts), for safe passage of amphibians and reptiles should be considered for road crossings/intersections with natural features (including wetland restoration area).

5.5.3 Successional Meadows

While the wooded areas and small field should be allowed to evolve through natural succession the large field east of the woodland and west of the creek can be managed and cultivated to display habitats in various stages of succession. This approach serves many ends: it breaks down the scale of the field, should the field centre be located in Field 3, it reduces the amount of the property in agricultural production requiring time and resource consuming attention, and creates a range of natural heritage linkages and habitats that can be studied. Paths cutting a transect through bands of succession allow students to walk through time in the development of a forest.

5.5.4 The Woodlot and Sugar Bush

The woodlot and sugar bush should be maintained according to a forest management plan, with the interior raspberry cultural thicket allowed to evolve through succession. Upgrades may be needed to the sugar shack to support the popularity of this program, including upgraded vault washrooms.

5.5.5 Trails

A network of paths and trails will weave through the various landscapes of the Ecological Zone, as well as across the other zones, knitting together the entire property. The main organizing feature of the trail network is the farm lane, which connects to the Ecological Zone trails that provide a different “wilderness” experience in contrast to the more open experience of the rest of the network. Within the wooded areas a main trail loop should connect with the lane, while other sub-trails can explore interior forest areas, the meadow etc. A dynamic system should be developed that allows for some trails to close at certain times for regeneration, while others remain open.

Trails should traverse the rolling topography and allow for views both into and out of the property. The ability to observe the evolution of both the Farm and the surrounding city in contrast is a key learning opportunity. Trails through dense areas should include “pull-out” spots for gathering and nature study, and may include log benches for resting.

Trail development and maintenance can be undertaken by students. Trail interpretation plaques indicating elements in key views, flora and fauna or other information of note can also be developed by students. Trails can also be used to host artistic installations. At minimum one access trail to/through each key landscape should be accessible. Current standards for accessible trails require, at minimum, a hard packed surface. Boardwalk trails are also possible but may require more maintenance effort in winter. Otherwise, trails and paths should be created with natural materials.

Portions of trails across the property can be blocked off to restrict access during certain program times to ensure a safe environment for students to enjoy independent exploration and study. As previously stated, a dynamic system should be developed that allows for some trails to close at certain times for regeneration, while others remain open.

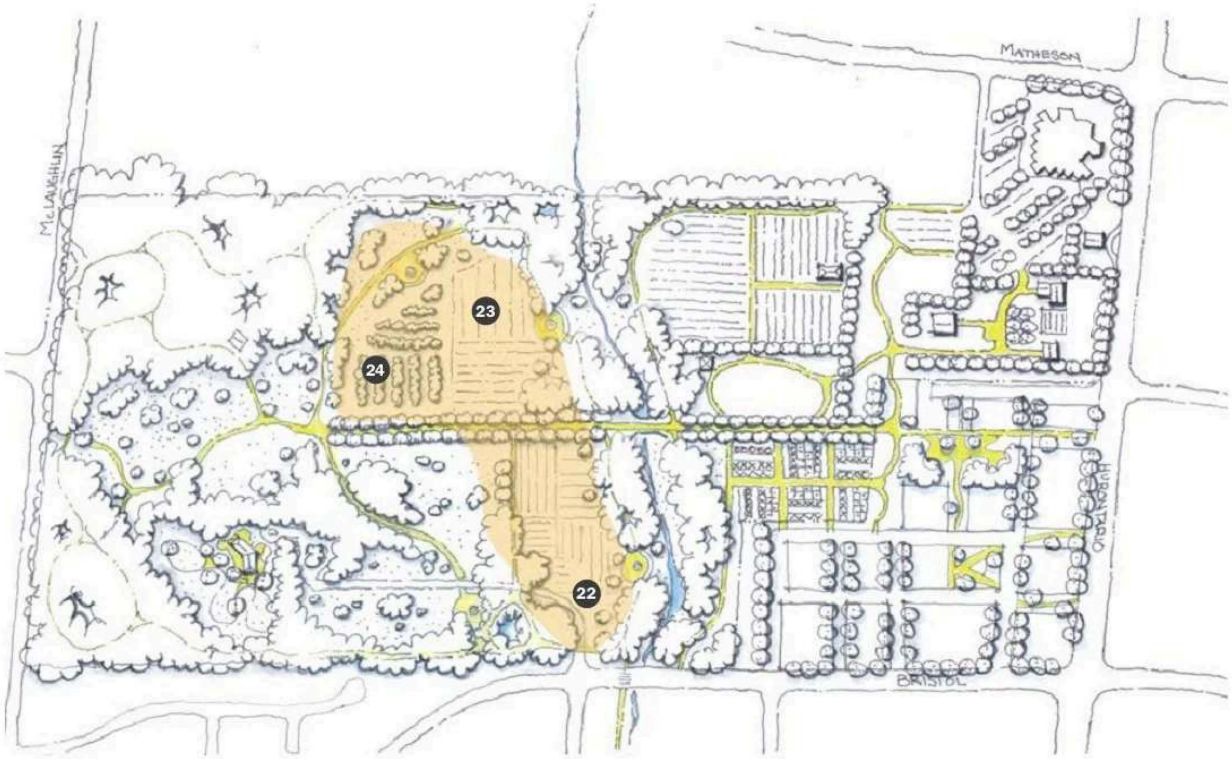
5.5.6 Outpost Shelter

The rolling topography of the site gradually rises in elevation toward the west. An observation outpost is recommended to be built into the side of the natural slope of the ridge where the sugar bush meets the northern field. The top of the structure can be a key view point, while the lower level in the slope offers shade, a windbreak and small scale storage. It can act as a classroom or outdoor art studio, or research station. It could also include a vault toilet. The outpost should be designed in same architectural vocabulary as the main field centre building.

5.6 Agricultural Zone

In recent years there has been a move away from intensive commercial-style cultivation of the land and the teaching of “agriculture”. However, the agricultural history of the property, and the fact that over 75 acres of Britannia Farm is currently in an agricultural state, suggests that growing food should remain an important activity on the Britannia Farm lands. Furthermore, increasingly in recent years there is interest in understanding where our food comes from. A shift to smaller scale and less intensive approaches to growing food may be more appropriate, including a focus on permaculture, and market crops. This can extend to studies in the potential for urban agriculture, the culinary arts, and sales and marketing of the fruits of the labour, even through an on-site market.

In order to support the planting and restoration program on the property (border screens, hedgerows, field centre landscape etc.) a forest nursery or native plant nursery, or arboriculture can be established in one of the fields to grow forbs, graminoids, shrubs or trees. This not only supports the property and offers learning experiences but also allows the Britannia Farm program to reach beyond the property. The forest nursery can also supply plantings to PDSB school properties.



Key Moves

Vehicular Access & Enhanced Entrance

A new main access driveway for the field centre will be established north of the existing Bristol Rd and Swiftcurrent Trail intersection. Its cross section will be rural in nature (no curbs) and will be lined with trees. The driveway should turn west toward the field centre equidistant from the farm lane and the restored wetland.

Agricultural Fields

The fields north and south of the farm lane will be used to deliver program focused on sustainable approaches to agriculture and at a scale appropriate for an urban environment. Large commercial equipment should not be necessary.

Forest Nursery

Arboriculture can be studied through establishment of a forest nursery to aid in on-site planting and restoration as well as at PDSB schools.

5.6.1 Field Planting Approach

Field acreage can be divided into small scale plots to demonstrate approaches to urban agriculture and growing market crops, fostering a sense of land stewardship and connection to what we eat. Crops selected should not require full scale equipment (e.g. combine) for harvesting. Seasonal and culturally diverse foods can be donated to PDSB culinary programs, local foodbanks, and/or sold at farmer's markets or to partner restaurants, with the potential to involve students in every step of the farm-to-table process. If more regular care and maintenance of market crops is needed, co-op programs could supply students who take a more in-depth interest in cultivating the land. Market crop fields should be supported by appropriate infrastructure such as a tool shed and access to water.

The smaller scale focus is also appropriate for demonstrating the practice of *permaculture*:

Permaculture is any intentionally designed agricultural system that thrives due to the integration of natural elements, ecosystems, weather and agriculture.

Large field spaces can also be planted with corn or other tall, sturdy species. Such fields can be shaped seasonally to establish hidden "classrooms" cut into the field, or even a corn maze for community enjoyment at the end of the growing season.

The Britannia Farm hedge rows should be retained as a key organizing feature of the land and a demonstration of enduring rural heritage, while at the same time reducing soil erosion, providing wind breaks and offering habitat for wildlife. The retained hedge rows across the property can be enhanced with additional planting and extended to provide additional spatial structure, screen off-site features and provide travel corridors and habitat for wildlife.

Grassland Bird Habitat Creation and Research Area

Should agricultural practices not be pursued, the large northern field provides an opportunity to create grassland breeding bird habitat for Dolichonyx oryzivorus (Bobolink) and Sturnella magna (Eastern Meadowlark), both designated as Threatened under Ontario's Endangered Species Act (2007). A minimum of 4 hectares of suitable habitat is required to support these species and the habitat needs to be located 25 m to 100 m from the nearest hedgerow or forest edge.

Education opportunities exist in these restoration areas. Students could conduct collaborative research on habitat creation aspects including: creating and monitoring the characteristics and habitat viability of different hayfield crops and native meadow habitats; and evaluating grassland bird breeding use (e.g., density, productivity). This research would contribute to filling knowledge gaps in our current understanding of grassland bird Species at Risk (MNRF Recovery Strategy, 2013). In addition to supporting threatened birds species, these grassland habitats can provide important pollinator habitat (e.g., for bees and other insects).

5.6.2 Forest Nursery

In order to support the planting and restoration program on the property (border screens, hedgerows, field centre landscape etc.) a forest nursery or native plant nursery or arboriculture can be established in one of the fields to grow forbs, graminoids, shrubs and trees. This not only supports the property and offers learning experiences but also allows the Britannia Farm program to reach beyond the property. The forest nursery can also supply plantings to PDSB school properties.

Permaculture contour gardening

Schoolyard gardening: Portland, Oregon

Grassland bird research

Pot-in-pot nursery technique for ease of transplanting

5.7 Development Parcel

The full funding announcement of the Hurontario LRT was a major game changer for the City of Mississauga and the future of the Britannia Farm site. The LRT will, over time, change the face of the Hurontario Street corridor into an inviting, vibrant street. Now is the time to capture the value in a portion of the lands fronting onto Hurontario Street and to explore market-based opportunities.

The development parcel should be developed with the utmost respect for its special surroundings: no other parcel of this scale (approximately 32 acres) will be able to offer the most attractive transit connections; proximity to the Downtown and highways; and adjacency to a 170 acre historic and green cultural heritage landscape. A mix of uses and a sensitive built form will ensure that the proposed development responds appropriately to these unique assets.

Key Moves

Neighbourhood Parks

The development parcel should include publicly accessible community open spaces.

Midblock Connections

The development parcel should include mid-block pedestrian connections.

Landscape Buffer

The edges of the development parcel should be appropriately treated to both screen views to the urban environment and ensure it blends into its surroundings.

Development Blocks

A fine-grain network of streets and pedestrian paths will create development blocks at a scale that complements the Farm and the surrounding neighbourhood.

5.7.1 Development Principles

Development of the development parcel should adhere to the following principles to ensure an appropriate relationship to the Britannia Farm property, the neighbourhood and the evolving Hurontario Street corridor.

The development parcel will be:

1. A transit-supportive community:

- The development parcel should be planned with both residential and commercial/employment uses that take full advantage of and support the LRT.
- The street and block layout of the development parcel should prioritize pedestrian movements with dedicated pedestrian paths linking to Hurontario Street LRT stop.
- Parking requirements should be minimized and primarily provided below grade.
- The Hurontario Street frontage in the vicinity of the LRT stop at Bristol Road should accommodate the intentions of the Hurontario LRT Streetscape Study Pedestrian Priority Zone and respond to its indication as a Gateway location in the Hurontario/Main Street Corridor Master Plan.

Mixed-use, mixed-scale development with ground-floor retail: Port Credit

Mixed-use, mid-scale development with ground-floor retail: Austin, TX

2. A place to live, work, play and foster community:

- The Hurontario Street frontage should include active uses to foster a vibrant street life including restaurants and cafés, shops and urban-format grocery store.
- The community should be well connected by mid-block pedestrian paths leading directly from Hurontario Street and the HLRT to the public access trails on Britannia Farm.
- Public open spaces should be provided throughout the development parcel. Design of these spaces could be based on a rural/agricultural theme.

3. A place with diverse building forms and varied architecture that complement Britannia Farm and the existing neighbourhood:

- New development should not try to mimic historic vernacular but rather use materials and design details that relate to the context.

4. A place that respects and celebrates its heritage:

- The historic farm lane should be maintained as a key east-west pedestrian link and view corridor to the remainder of the farm property.

High quality public open spaces

Using character materials in a contemporary built-form: Vancouver, British Columbia

Britannia Farm lane

4. A place that transitions from the urban setting of Hurontario Street and Bristol Road to the open space setting of the Britannia Farm lands:

- Podium (or mid-rise) buildings should front onto Hurontario Street and Bristol maintaining a scale appropriate to the width of the street and adjacent development.
- Podium buildings should include active retail and commercial uses at grade and commercial/office uses on the upper levels. These uses should be focused toward the intersection of Hurontario Street and Bristol Road.
- Some taller buildings could be located closer to the intersection of Hurontario Street and Bristol Road.
- The mid-rise buildings should transition to lower scale buildings toward the retained Britannia Farm lands.

Built-form height transition from taller element to pedestrian-scaled base: Richmond Hill, Ontario

5. A place that exists in harmony with its surroundings:

- Stormwater could be managed through rain-gardens, bioswales and other extensive soft landscaping areas that will also add to the beauty of the community.
- Alternative energy approaches such as solar panels and district energy could be considered.
- Native and drought resistant species and permeable surfaces could be used in landscaping.

Built-form height transition from taller element to a mid-scale base and townhomes: Vancouver, British Columbia

Contemporary development integrated within stormwater management feature and landscape: Victoria, BC

5.7.2 Development Parcel Next Steps

This Master Plan sets out a vision for the development parcel with the goal of engaging private sector interest in this remarkable opportunity. The revenue generated by the development should be invested and earmarked for capital, operations and maintenance needs of the Britannia Farm, Finlayson and Jack Smythe Outdoor Centres. Such a fund will ensure the longevity of these centres and the ability of PDSB to deliver enriching alternative programs for subsequent generations of Peel students.

Prior to development occurring, amendments to the municipal planning policy framework are needed. The development parcel is currently identified for institutional uses in the Official Plan and Zoning by-law. Amendments will seek to permit mixed-use development consistent with the principles described above.

Legend

1. Future planned Hurontario LRT & Bristol Road stop
2. Pedestrian connections to Hurontario Street
3. Active frontage along Hurontario
4. Neighbourhood park
5. Mid-block pedestrian connections
6. Landscaped parcel edge buffer
7. Farmstead park and farm lane connection
8. Areas for stormwater collection & infiltration e.g. Bioswales
9. Community gardens
10. Heritage farmstead relocation
11. Events lawn "Britannia Common"

- Underground parking access points
- Traditional Townhomes
- Back-to-back Townhomes
- Mid-rise
- High-rise

Demonstration Plan illustrating one approach to applying the Development Principles

CONCEPT PLAN

5.8 Trail Network

While each of the zones have been described independently, they are part of a larger ecosystem framework on the property. The hedgerows and farm lane plantings provide habitat connections between the wood lots, meadows, fields wetlands and creek. A trail network that traverses the property will provide the same thematic linkage for students and the community.

Trails should be established to provide a logical circuit around the property, including local loops to features of interest within the zones, utilizing the farm lane as a structuring and orienting feature. Trail surfaces should reflect the landscape of the zone and desired experience. For example, wilderness trails through the sugar bush and meadows should have surfaces of natural material, whereas the paths through the historic cluster may include a combination of dirt or grassed paths as well as historically appropriate paving stones. The trails can include interpretive signage developed by students as well as supporting infrastructure for nature study such as nesting boxes or bird houses. Dynamic use of the trails can also include opportunities for orienteering, geocaching or artistic display (a sculpture walk).

Trails could feature opportunities for rest, including benches of found material (e.g. logs). Washroom facilities could be provided at the Field Centre and Gardner-Dunton House, but an additional vault toilet could also be provided along the farm lane, at the northern field outpost or at Britannia Common.

Mowed meadow trails that can change course every year

Natural log bench

Hand-crafted trail signage: Norfolk, UK

Tree identification trail: Union County, New Jersey

6.0 PUBLIC ACCESS

6.1 Public Access

The School Board and City have agreed to explore options for inviting the public onto the property. However, before any form of public access is agreed to, the Board and the City need to identify respective responsibilities and sources of funding. For the Board's part, funding for the Britannia Farm and its Field Centres are not supported by Ministry of Education capital or operating grants. The Board requires some certainty of revenue generation by development of the 32 acre development parcel before it can partner in public access to the Britannia Farm.

While community use of school sites is not atypical, the Britannia property is certainly not a typical school site. As such, a phased approach is recommended for introducing public access to Britannia Farm. The first phase involves inviting passive use by the public; the second phase introduces some light programming and continues passive public use; and the third phase builds on existing public access to the site by introducing additional programming/ activities on the site. Each of Phase 2 and 3 are suggested approaches if desired by the Peel District School Board at that time. Each phase is further explained below.

These recommendations allow the Peel District School Board a high degree of flexibility when it comes to managing public access, thereby allowing this important asset to be enjoyed by members of the public while also ensuring the Board's programming takes priority. A greater sense of ownership over the site by members of the public will engender greater desire for land stewardship and respect for the property and natural heritage in general.

Phase 1 – Passive Public Uses

Allow for the public to make use of Britannia Farm walking trails. Despite "no trespassing" and "private property" signage, we know that members of the public do walk the site. Simply updating the signage to acknowledge the activity already taking place will begin to foster a sense of collective stewardship of the lands.

- Create guidelines for use: Determine key guidelines for passive public use and post these guidelines on signage and on the Peel District School Board's website. Guidelines may include:
    - Time/days of permitted use.
    - Pack it in, pack it out. Bring all of your litter with you when you leave.
    - Pick up after your pet. (Consider on/off leash policy).
    - Observe wildlife from a distance.
    - Stay on cleared paths and trails.
    - Paths are not cleared. Use at own risk.
    - No overnight use.
    - No bicycles or motorized vehicles.
- Map areas for public enjoyment (e.g. woodlot & sugarbush trails, farm lane, northern creek trail from PDSB parking area, perimeter trail around heritage zone.)
- Create and post signage on the site: Create and post signage that clearly communicates the extent of public access including the above guidelines and map.
- Create simple rustic gates or barriers that can be set should certain areas of the property need to be closed to the public for program delivery.
- Plan for additional maintenance: More people accessing the site will lead to a need for additional maintenance of walking trails. Despite "pack it-out" directive, additional context-appropriate garbage receptacles should be considered at key locations (trail heads, parking areas, etc.). Receptacles should be critter-resistant and large enough to accommodate intermittent emptying.
- Consider context-appropriate fencing/gates for key areas where general public access is to be deterred – this may be the heritage zone and the riparian zone, notwithstanding any potential creek-side trail, and in time, the development parcel.

Phase 2 – Limited Active Programming

Build on existing passive public use by introducing more active programming, such as public community gardens. It is recommended that this phase of access be explored once the School Board is in the rhythm of more active use of the site and/or once plans for the development parcel are more concrete as both may influence how and where public programming occurs. Programming may be offered by PDSB or other partner organizations that enter into program delivery agreement, or land use agreement with the Board.

- Introduce public community gardens: Community gardens have been suggested at the community consultation events as a desirable public activity and are consistent with the rural/agricultural experience of the property. They are also a key component of the 1989 Plan for animating the site. There are different ways public community gardens could be accomplished on the site. The Peel District School Board may wish to be wholly responsible for managing the gardens, or it may wish to bring a partner on board. In either situation, the Board could retain some of the garden plots to be tended by local schools, providing additional access to the property outside typical scheduled and charged field trips.
- Garden locations could include the lands between the development parcel and the farm lane, or could be located in the flexible fields accessed from the PDSB parking lot. Both locations would provide access to parking and key municipal services such as water.
- Encourage community engagement: Facilitating community involvement will help to ensure the long term viability of the trail system and protection of natural heritage areas. Stewardship and volunteer participation should be encouraged, complimenting existing Peel District School Board resources. This range could include community involvement in trail marking or community clean-up days. If the Master Plan concept of encouraging succession and supporting edge and hedgerow growth is implemented, the community could also be involved in “planting bees” of trees and shrubs to harness community interest in strengthening the natural habitats on the property.
- Continue offering community access to existing PDSB programming on the property i.e. the sugar bush experience during the maple run and the heritage experience on selected holidays and weekends.
- Consider offering community groups use of the field centre and other key areas (e.g. the flexible fields by the parking lot) for appropriate and compatible events (e.g. farmers market, community picnic etc).
- Consider offering/partnering to offer summer day camps on the property when the site is not otherwise in use.

Phase 3 – Determine Future Direction & Build on Successes

At this point, the Peel District School Board may wish to assess the success and challenges related to public access to the site to-date, in order to determine a future direction. The Board may decide to build on the existing level of public access by introducing additional active public uses, such as regularly scheduled programs and events, or it may decide instead to maintain the existing level of public access.

- A higher and more regular level of activity may create infrastructure constraints related to access and parking. The Master Plan includes recommendations for addressing these issues down the road, if desired.

7.0 IMPLEMENTATION

7.1 Implementation & Next Steps

Implementation of the Britannia Farm Master Plan can and should happen in phases once funds are made available through development of the development parcel. The Master Plan provides an organizational approach to the site and it is flexible by design to accommodate changing needs, the interests of staff and students and further technical findings. Most features of the plan will require detailed design, planting plans, working drawings and/or more technical study and architectural work. However, the landscape itself and the variety of plant and animal species it is home to can be explored and studied immediately through the creativity of PDSB staff.

The following sets out a logical but flexible sequence of steps for the major elements of the Master Plan, to be initiated based on budget allocations that may be available from year to year as finances permit, and the priorities of the Board and its Staff:

Field Centre:

- The ability to undertake large capital works are directly related to availability of funds for such purposes. It is likely, therefore, that the major fixed elements such as the field centre building will not be implemented until progress is made on secucring a partner for the development parcel.
- Detailed design for the field centre may include a detailed survey of the preferred location; transportation studies and discussions with the City regarding the new access off of Bristol Road; developing a detailed building program; investigation into preferred building performance standards and technologies, in addition to the actual building design.

Urban Agriculture; Habitat Restoration; Forest Nursery:

- The various ecological and agricultural aspects of the plan relate directly to delivering program and incorporating curriculum. The PDSB staff who will be delivering the programs and developing the curriculum are, therefore, best poised to determine the priorities.
- Natural heritage restoration and enhancement can start with farm lane and hedgerow improvements and property border planting for improved buffering and screening of views.
- Discussions should be initiated with the Credit Valley Conservation Authority regarding wetland and creek restoration opportunities and partnerships.
- Restoration plans should include accommodation for the creek overlook platforms. Once locations for platforms have been determined, working drawings and installation can occur.
- Planting plans could be developed for the eventual planting of the forest nursery and other demonstration fields. Permaculture and intercropping practices could be investigated.

Trail development including Public Access and small site features:

- Existing trails through the wooded areas can be maintained and new trails can be developed by students, including preparing interpretation signage.
- Bird houses, nesting platforms and other smalls scale natural science study features can be built and installed.
- Conversations should also continue with the City of Mississauga regarding public access to the existing trail system as well as development of a Cooksville Creek trail, connecting with the city-wide network.
- Upon establishment of an initial public access protocol, new signage should be installed at the current sugar bush access on McLaughlin; at the trail head at the H J A Brown Education Centre overflow parking lot and at the existing main access to the farmstead from the main parking lot.
- Opportunities for community use of the property for festivals and events should be sought to introduce the community to the property and ingrain a sense of stewardship.

Development Parcel:

- Amendments to the municipal planning framework are required to permit development on the development parcel.

Farmstead Relocation and Upgrades:

- The 2010 site plan submitted to the City of Mississauga for the relocation of the farmstead buildings is still active. The relocation of the buildings must comply with the conditions set out by the City of Mississauga General Committee in 2010.
- Once relocation timelines are better known, a thorough review of the buildings should be undertaken to plan for the move and for building restoration.
- A landscape plan should be developed for all of the historic buildings to ensure a high quality and varied landscape the Farmstead area.

Partnerships

- The adoption of the Britannia Farm Master Plan provides clear direction to Board Staff to start considering the Britannia Farm property as an integral part of its inventory and direction should be given to review the program design proposed in 2010. With a clear vision for the property and the program to be delivered on it, staff can explore potential partnerships for support in various areas, some of which have already been mentioned:
    - CVC has indicated interest in partnering to establish habitat enhancement and restoration plans
    - The City of Mississauga is interested in securing public access to the site. The form of public access will be further articulated through a Public Access Agreement between the Board and the City.
    - The City of Mississauga should also be approached regarding the development of an extension to the Cooksville Creek trail through the property.
    - Partnership opportunities may exist to support the agricultural program on the property and the management of the community gardens.
    - Partnership opportunities may exist to make use of the property during the summer months, for uses such as summer day camps.

APPENDIX

I) Historic Resources

The Britannia Farm property was included on the City of Mississauga's Inventory of Cultural Landscapes in 2005 as one of the last remaining agricultural landscapes in the city. The 200 acre property contains four historic structures:

1. A red brick schoolhouse (built c1870).
2. A one storey wood frame farm house (built c1860) with a two storey brick addition (built c1870). It is known as the Britannia Farmhouse.
3. A two storey brick residence (built c1830), relocated to its present location in 1989. It is known as Gardner-Dunton House.
4. A wood barn (built c1880), relocated to its present location in c1989. It is known as the Conover Barn.

The Britannia Schoolhouse is located at the north corner of the property facing Hurontario Street. It is rectangular in form and consists of a three-bay front façade as well as three bay side facades (north and south). These facades are divided by pilasters with quoins on each corner. The entrance is situated on the front (east) façade with a false rose window above. The building is red brick veneer (likely over a wood frame) with round-headed door and window openings. The building is handsomely detailed with decorative red brick corbelling at the eaves and buff brick surrounds at the door and window openings. It has a gable roof with decorative cupola containing the school bell. In its materials and detailing, the Britannia School House is fine example of the one-room school house which proliferated across southern Ontario in the late 19th-century. The building was designated under the Ontario Heritage Act by the City of Mississauga in 1992.

Aerial image of the site today

The Britannia Farmhouse is located roughly in the centre of the site about 50 metres from Hurontario Street. It is a one-and-a-half storey, three bay brick veneer structure, with central front gable and round-headed window openings. A one-storey, three bay timber kitchen addition is attached to the rear of the house. According to the saw marks, it has been dated to an earlier time period – the 1830s and may have been part of the original school. The Britannia Farmhouse is representative of the Victorian Gothic style used for farmhouses in southern Ontario. The use of buff brick for detailing at the window and door surrounds and quoins is typical of this style. The detailing around the windows of the farmhouse is very similar to that on the schoolhouse. The Britannia Farmhouse was designated under the Ontario Heritage Act by the City of Mississauga in 2001.

The Gardner-Dunton House is a two-storey red brick, rectangular structure, with a one-storey brick wing and stone additional at the rear. It has a five-bay front façade with a central door, six-panel sidelights and rectangular transom. Dating to c1830, Gardner-Dunton House is an excellent example of the Georgian Revival style. It was originally designated by the City of Mississauga in 1987 and then re-designated after its relocation the Britannia Farm property.

The Conover Barn is a large 4 bent, 3 bay structure with a 6 bay stable below. Constructed in the late 1880s it was a Gambrel roofed bank barn with timbers used from an earlier structure. The barn was relocated to its current location from Sheridan Nurseries in Oakville in 1989-90. Several changes were made to the structure including reorienting the banked entry from the west to the face of the building, reversing the orientation of the framing for the upper level and relocating the interior, circular stair to the north-east. The cladding was almost entirely new and the barn set up poured casson post foundations. The stable walls are reinforced grouted concrete block with a stone veneer.

The barn has not been designated by the City of Mississauga, although it is included in the description of the property as a cultural landscape.

Old Britannia Schoolhouse

Farmhouse

Gardner-Dunton House

Conover Barn

II) Configuration of Historic Buildings

The current configuration of the historic farm buildings is the result of the 1989 Master Plan to create an educational facility relating to agriculture/rural issues. The program, intended to dovetail with those at the Britannia Schoolhouse, was to focus on historic and contemporary rural life and agriculture. The original farmhouse provided a basis from which the organization of the farmstead was based. To support this program, another farmhouse would be brought to the location to house classrooms, offices and support facilities. A barn would either be brought or built on the site. These relocations occured in 1989-1990.

The farm lane and access from Hurontario Street was set up on an axis characteristic of traditional farm planning. At the time, it was noted that overwhelmingly there was a desire for the Britannia Farm to retain the appearance of a typical farm, in part by containing views from the Farm to screen the urban landscape as much as possible.

The Master Plan contemplated the relocation of the Gardner-Dunton House with a reconstructed kitchen wing as well as a large bank barn from the area. In the 1989 Plan, the recreated farmstead was to include a milk house, icehouse, chicken shed, corn crib, smoke house and windmill. Gardens were to be located in the yard. The farmstead was to be oriented towards Hurontario Street and retained the existing central laneway as symbolic and emergency access. A new north-south access was created from Bristol Road to the farmstead.

The grouping of the Gardner-Dunton House farmstead with the existing, original farmhouse was intended to portray a typical agricultural experience of the mid-19th century. The Gardner-Dunton house acted as the main farmhouse with the original Britannia farmhouse appearing as a second residence for additional family or hired hand. The intentions and rationale of the Master Plan were sound, however, the placement of the two residences in close proximity and separated by a common access road, is atypical of farmstead development in Ontario.

III) Current Historic Structure Conditions

A site visit was conducted on July 6, 2016 by Charles Hazell of Taylor Hazell Architects. The exteriors and interiors of Britannia Farmhouse, Gardner-Dunton House and Conover Barn were reviewed.

Britannia Farmhouse

The Britannia Farmhouse is the only building remaining of what once was a functioning farm. The as-found condition of the building is poor with many significant structural deficiencies. In 1990, the exterior was restored, the wood rear additions and porch were removed and reconstructed, windows and doors were replaced. Inside the historic building all finishes, except the pine and maple flooring, were removed. The interior was renovated to modern standards for programming reasons. The stone basement below the historic building is intact.

The Britannia Farmhouse was vacated after the abandonment of the programme to operate the site as a period demonstration farm. It has not been maintained however it is heated in the winter, security checks are ongoing and the interior, with the exception of the basement is generally well kept.

The quality of the 1990s exterior restoration was mixed in that there are examples of good work such as the decorative wood trim and work that was poorly executed such as the addition and chimneys that were made of plywood. The absence of routine maintenance and poor detailing has led to the premature failure of many masonry and wood elements.

Many of these deficiencies were identified in the Kearns Mancini Architects Heritage impact Statement (2010). These conditions were re-examined in July 2016 and in all cases, damage was found to have increased significantly in every category.

Setting

The site appears to have been abandoned. Fences are down, the lawns are overgrown and crowd against the building making routine building review and maintenance impossible.

Exterior

- Wood shingle roof: Poor condition and in need of replacement.
- Chimney projections (decorative): Poor condition with loss of veneer and now a likely source of water entry.
- Masonry: Ongoing deterioration of brick and mortar joints. Cracks at the foundation level and at some lintels appeared to be more extensive.
- Windows and doors: Advanced deterioration primarily at the sills and lower sash with through penetrations in may locations. Double glazing details in the doors are unorthodox and have failed.
- Wood cladding, veranda and two porch structures: Fair to poor condition. Generally, dilapidated conditions leading to weakening of connections and severe weathering.
- Flashings: poorly detailed and separating from the masonry now a likely source of water entry.

Interior

- Interior finishes: Fair to good condition with no obvious signs of water entry or damage to finishes.
- Windows and doors: Severely damaged and requiring replacement.
- Basement: Evidence of water entry, high humidity, debris and damaged finishes primarily in the new addition. One obvious source for water is the cellar door which appears to have been subject to repeated flooding.

Britannia Farmhouse

Gardner-Dunton House

The Gardner-Dunton House is an example of a significant Georgian Revival home. It was successfully moved to the site and restored in 1989-90. The building massing is divided into two parts: the historic 5 bay red brick Georgian Revival house and a two part addition fashioned after vernacular addition that had been built onto it in its original location.

It is a highly valued heritage building and has been in continuous use since it was opened to the public, though its use in recent years has shifted to office. It has benefited from continuous use, a dedicated staff and an interested public.

The conservation approach that was applied to the heritage building was of a high level. Most of the work that was done, interior and exterior, has performed well. However the absence of significant routine maintenance has resulted in significant damage. For example, building elements such as windows and brickwork where damage (and noted in the 2010 KMA report) was found to have increased by 3 times.

Exterior

- Roof: The cedar shingle roof was in fair to poor condition having reached the end of its lifecycle.
- Walls: Three wythes construction of red clay brick, in fair to good condition. Damage to the brick occurred below window sills, relative to the chimney flues and in relation to the entrance and wood lintel. The east and south elevations showed the most extensive damage. Chimneys appeared to be in fair to good condition.
- Windows and Doors: Storm windows were introduced to provide protection to the historic windows and glazing. Advanced deterioration was observed in many of the storm windows and it is possible that all of them will need to be replaced. Wood sills are also likely to be damaged. The front door, sidelites and molding are severely damaged at the sill level. Insect infestation and damp conditions causing water entry and severe air leakage were noted.
- Wood shed structure, soffits and eaves: Fair to good condition.

Interior

- General: The rooms and on all floors were fully occupied and well maintained. The basement was built in 1990 and was found to be in good condition however it was remarked by staff that flooding had occurred in the past.
- Plaster, woodwork, glazing and historic finishes: These were carefully conserved in 1989-90 were found to be intact and in good condition. Modern materials such as carpets and paint finishes are in fair condition.
- Windows and doors: Great care was taken to preserve original woodwork and glass. Windows appeared to be in good condition. Doors were in fair to good condition however the front entrance door was in poor condition.

Gardner-Dunton House Addition

Exterior

- Roof: The cedar shingle roof was found to be in poor condition having reached the end of its lifecycle. Repairs had taken place where a significant leak had occurred.
- Masonry walls: Good condition.
- Wood windows and detailing: Generally in good condition.

Interior

- All materials and assemblies are new construction built in 1990. They were found to be in good condition.

Setting

The setting around the historic building is sparse and consists of well-maintained lawns. The gardens typically associated with a residence of this calibre and that would add to its identify have not been developed. This is an opportunity that should be considered moving forward.

Gardner-Dunton House and Addition

Conover Barn

An excellent, representative example of an Ontario vernacular bank barn featuring direct access by an earthen ramp to the hay loft floor. Animal stalls are below with direct access to outside paddocks and grazing fields beyond. The Conover Barn demonstrates a gable entry more common in eastern Canada and the New England states as opposed to a side entry design. It is further distinguished by a curved stair that connects the raised hay loft level to the stalls level at grade. The barn was moved from the Oakville Sheridan nurseries property and reconstructed on the Britannia Farm Site c1989. The Barn was carefully disassembled and reassembled on the new site. The roof and exterior board and batten cladding were entirely replaced at that time. The hay loft level is used for storage of agricultural equipment. The lower level originally intended to function as a working barn has not been in use for many years and has the appearance of being abandoned.

A barn can be seen in a 1966 aerial image of the Britannia Farm. It indicates a compact layout of barns and outbuildings forming a three sided service court facing the Britannia Farm House. Paddocks extend out from the back of each of the barns. Topographic information confirms that grades slope gently across the original site much as they do now (approximately .5 metre). It is likely that the entrance to the main barn and the two other barns was from grade.

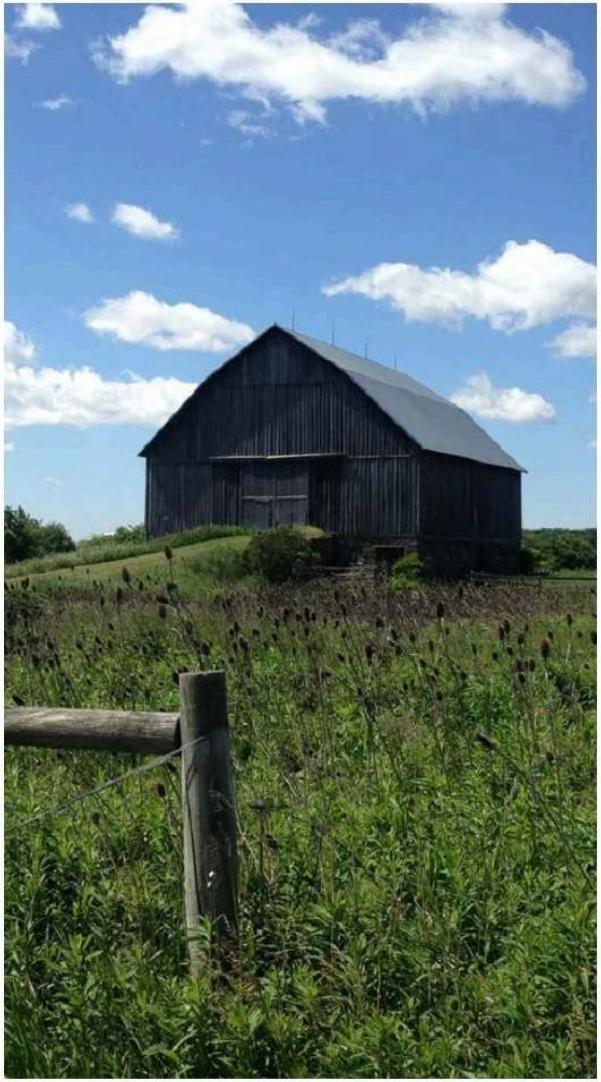
The exterior consists of a galvanized steel gambrel roof, board and batten pine cladding on a block foundation wall. The rubble veneer walls are salvaged.

No obvious signs of settlement cracks.

- Fair to good weather finish to exposed wood is consistent with barn finishes that are not stained.
- Good condition for exposed rubble veneer walls. Note: the ramp is not engaged with the barn foundation wall. Ancillary structures to the barn including a small silo are in fair condition.

The upper and lower level interiors are characterized by exposed timber framing, plank floors (likely hemlock), wood cladding. The circular stair is connecting the upper and lower levels is an important character defining feature of this barn.

The barn appears to be well ventilated and there are not obvious signs of water ingress, pigeon debris, etc. It can be expected that debris left in the stalls after abandonment will trap moisture and attract animals.

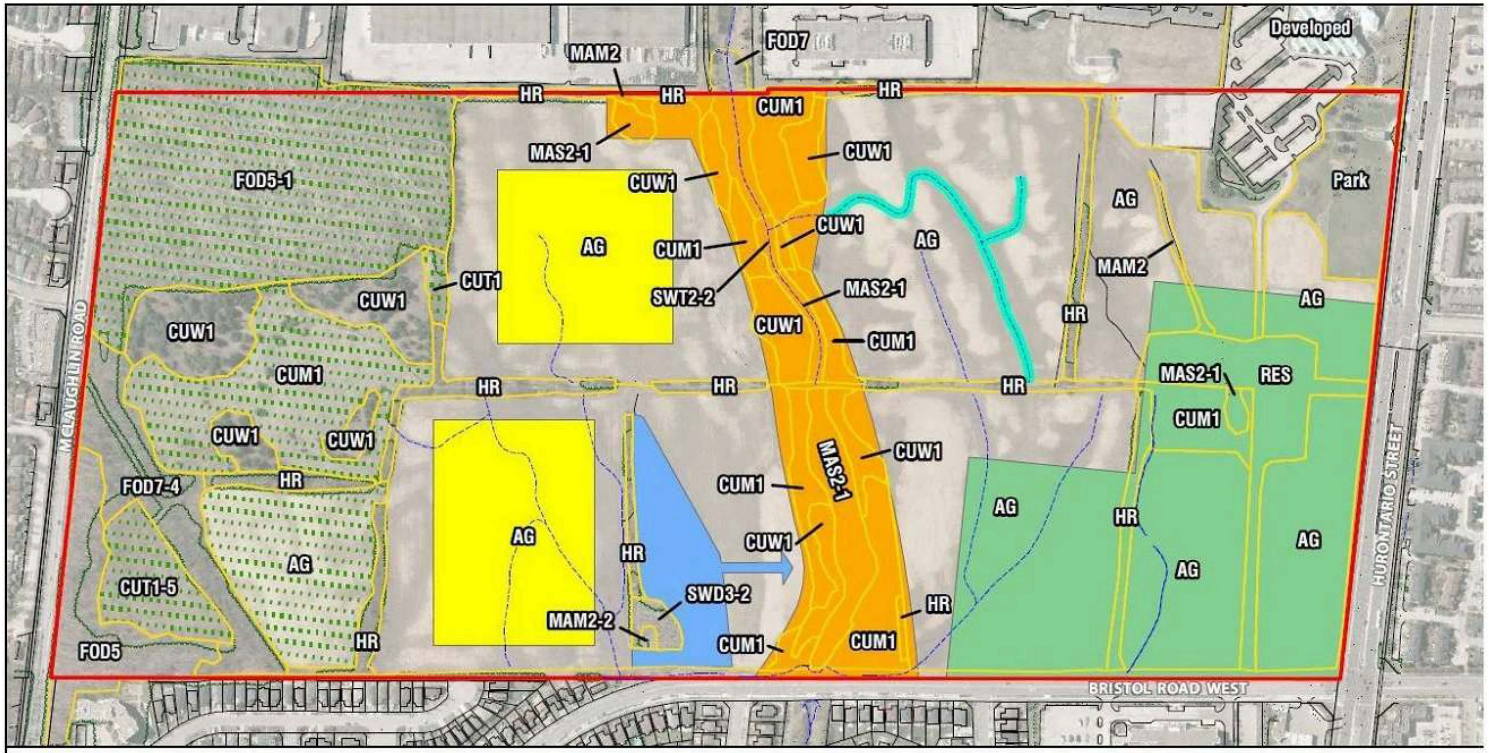


Conover Barn

IV) Field Centre Location Matrix

	NATURAL HERITAGE	MUNICIPAL SERVICES	PICK-UP /DROP-OFF & ACCESS	SITUATION QUALITY	VIEWS	PROXIMITY TO OTHER FEATURES	ARRIVAL SEQUENCE
FIELD 1	No signficant natural heritage - Agricultural lands	Northwest corner of site is **300m** from the Faith Drive Cul-de-sace ROW through agricultural lands	Signalized access off Bristol Rd. a significant distance of **600m** through existing fields. Access would have to cross the existing farm lane.	Elevated and exposed location.	Expanisve views across agricultural fields toward creek and the cityscape beyond. Potential direct view to Hurontario.	Strong connectivity to ecological & heritage features such as the sugar bush, meadow, fields and farm lane	Arrival off Bristol through undulating fields and hedgerows leads to meadows edge
FIELD 2	No signficant natural heritage - Agricultural lands. Proximate to restored wetland areas.	Northwest corner of site is **325m** from the Bristol Road ROW through agricultural lands	Signalized access off Bristol Rd. a moderate distance of **325m** through existing fields.	Elevated and exposed location with direct visual connection to Brsitol Rd.	Primary views of rolling landscape & creek floodplain with cityscape background. Some screened views through hedgerows. Potential direct view to Hurontario.	Close proximity to riparian habitats but distanced from sugar bush, woodlot and successional landscapes	Arrival off Bristol through undulating fields leads to farm lane and hedgerow
FIELD 3	No signficant natural heritage - Agricultural lands. May preclude transition to interior forest habitat.	Northern corner of site is **275m** from the Faith Drive Cul-de-sac ROW through hedgerow and agricultural lands	Signalized access off Bristol Rd. a significant distance of **575m** through existing fields.	Sheltered site contained on all sides by hedgerows, meadow edges and woodlot.	Views of rolling agricultural fields terminating at densely treed vegetation. Little to no exposure to urban conditions if south edge improved.	Close proximity to successional meadows and woodlot and moderately distanced to sugar bush and farm lane	Arrival off Bristol provides an unfolding sequence of habitats from undulating fields and hedgerows through a noteworthy treed threshold to site

V) Ecological Enhancement and Restoration Opportunities



Ecological Enhancement and Restoration Opportunities

ELC LEGEND

CUM1	Mineral Cultural Meadow
CUT1	Mineral Cultural Thicket
CUT1-5	Raspberry Cultural Thicket
CUW1	Mineral Cultural Woodland
FOD5	Dry-Fresh Sugar Maple Deciduous Forest Ecosite
FOD5-1	Dry-Fresh Sugar Maple Deciduous Forest Type
FOD7	Fresh-Moist Lowland Deciduous Forest
FOD7-4	Fresh- Moist Black Walnut Lowland Deciduous
MAM2	Mineral Meadow Marsh
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
SWD3-2	Silver Maple Mineral Deciduous Swamp
SWT2-2	Willow Mineral Thicket Swamp
AG	Agricultural
Developed	Developed
HR	Hedgerow
Park	Park
RES	Residential

Subject Lands
Ecological Land Classification
Future Development Parcels
Grassland Bird Habitat Creation Potential
Riparian Corridor Enhancement
Successional Areas to Interior Forest
Wetland Restoration
Headwater Drainage Feature Protection & Enhancement

0 100 Meters
1:6,000

SAVANTA

VI) Figure References and Credits

Page #	Description	Source
Cover	Farmhouse	Urban Strategies Inc.
iv	Sugar Bush	Urban Strategies Inc.
vi	Farmhouse	Urban Strategies Inc.
2	Farmhouse	Urban Strategies Inc.
5	Path	Urban Strategies Inc.
6	Public Consultation	Urban Strategies Inc.
8	Public Consultation	Urban Strategies Inc.
11	Public Constultation	Urban Strategies Inc.
12	Sugar Bush in October	Urban Strategies Inc.
14	Site Aerial	Google Maps
16	Old Britannia Schoolhouse	Urban Strategies Inc.
16	Farmhouse	Urban Strategies Inc.
17	Gardner Dunton House	Urban Strategies Inc.
17	Conover Barn	Urban Strategies Inc.
19	1877 - Peel County Atlas	http://digital.library.mcgill.ca/countyatlas/ Altered by Taylor Hazell Architects
20	Britannia Farm Fields	Urban Strategies Inc.
20	Meadow and Woodlot in background	Urban Strategies Inc.
21	Conover Barn	Urban Strategies Inc.
22	Cooksville Creek	Urban Strategies Inc.
23	Sugar Bush	Urban Strategies Inc.
25	Natural Features Desktop Analysis	Savanta
26	Significant Natural Heritage Features	Savanta
27	Woodlot	Peel District School Board
29	Urban Design Opportunities and Constraints	Urban Strategies Inc.
31	Bird's eye view Site Aerial	Google Maps

Page #	Description	Source
37	Mississauga Official Plan Schedule 1	http://www.mississauga.ca/portal/residents/mississaugaofficialplan
39	Mississauga Official Plan Schedule 2	http://www.mississauga.ca/portal/residents/mississaugaofficialplan
40	Pearson International Airport Operating Area Map	Mississauga Official Plan Excerpt: Toronto - Lester B
41	Mississauga Official Plan Schedule 10: Land Use Designations	http://www.mississauga.ca/portal/residents/mississaugaofficialplan
43	Mississauga Zoning By-law No.0225-2007 Map	http://www.mississauga.ca/portal/residents/zoningbylaw
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50	Program Concept Diagram	Evergreen
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63	Master Plan Drawing	Urban Strategies Inc.

Page #	Description	Source
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66	Historical Zone drawing	Urban Strategies Inc.
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Page #	Description	Source
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77	Key Moves Image 2: Ecological Linkages	https://commons.wikimedia.org/wiki/File:NRCSIA00043_-_Iowa_(2289)(NRCS_Photo_Gallery).jpg
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82	Field Centre Location Picture 1	Urban Strategies Inc.
82	Field Centre Location Picture 2	Urban Strategies Inc.
82	Field Centre Location Picture 3	Urban Strategies Inc.
85	View from the preferred field centre site	Urban Strategies Inc.
86	Ecological & Successional Key Map	Urban Strategies Inc.
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Page #	Description	Source
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Page #	Description	Source
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111	Gardner Dunton House	Urban Strategies Inc.
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117	Ecological Enhancement and Restoration Opportunities	Savanta